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1867

R. HOE & Co.

Manufacturers of

TYPE REVOLVING AND
SINGLE AND DOUBLE CYLINDER

Printing Machines

POWER PRESSES,

(ADAMS' PATENT.)

WASHINGTON AND SMITH HAND PRESSES,
SELF-INKING MACHINES, &c.

EVERY ARTICLE CONNECTED WITH THE ARTS OF LETTER-PRESS, COPPER-PLATE AND LITHOGRAPHIC PRINTING AND BOOKBINDING ALWAYS ON HAND OR FURNISHED ON SHORT NOTICE.

Cast Steel Saws,

STEAM ENGINES, MACHINERY, IRON AND BRASS CASTINGS, &c.

Library of
1867
City of Washington.

NEW-YORK,

Nos. 29 AND 31 GOLD STREET,

BOSTON, ON FOUNDRY STREET.

AND ON BROOME, COLUMBIA AND SHERIFF STS.

LONDON, 13 SALISBURY SQUARE, FLEET ST.

1867

Francis Hart & Co., Printers, 63 Cortlandt Street, N. Y.

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1867

ENTERED, according to Act of Congress, in the year 1867,

BY R. HOE & COMPANY,

In the Clerk's Office of the District Court of the United States in and for the Southern District of New-York

PRINTED BY FRANCIS HART & CO., ON R. HOE & CO'S SINGLE LARGE CYLINDER PRESS.

Catalogue.

R. HOE & CO'S

Price List of Printing Materials, &c.

Letter-Press Department.

Printing Machines.

Type-Revolving Fast Printing Machine (see pages 9 to 19).....
Double and Single Cylinder Printing Machines (see pages 20 to 23).....
Type-Revolving Book-Perfecting Press (p. 27)
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Single Large Cylinder Printing Machine (see page 29).....
New Single Large Cylinder Hand-Printing Machine (see page 38).....
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New Color Printing Machine (see pages 36, 37)
Bed and Platen Power Press (see pages 46 to 47)
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Patent Railroad Ticket Machines (see pp. 53, 54)
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Small Card Press (see page 56).....
Patent Washington Printing Presses (see pages 57, 58).....
Patent Smith Printing Press (see page 59).....
Hand Lever Printing Press (see page 60).....
Stansbury Hand Press (see page 61).....
Ready Proof Presses (see pages 62, 63).....

Inking Machines, &c.

Steam Inking Machine for Hand Press (p. 64)	
Folio Post	$265.00
Medium	290.00
Super Royal	315.00
No. 1	340.00
" 2	365.00
" 3	390.00
" 4	415.00
" 5	440.00
New Patent Self-Inking Machine to work by the action of the Press (see cut, page 65)....	
Foolscap	130.00
Medium	145.00
Super Royal	160.00
Nos. 1 & 2	175.00
" 3 & 4	190.00
" 5 & 6	205.00
Improved Inking Apparatus, with vibrating cylinder, railway and carriage, to work by hand (see cut, page 66).....	
Foolscap, with one ink roller	48.00
" with two ink rollers	58.00

Inking Machines.

Improved Inking Apparatus, &c.	
Medium, with one ink roller	$52.00
" with two ink rollers	62.00
Super Royal, with one ink roller	56.00
" with two ink rollers	66.00
Nos. 1 & 2, with one ink roller	60.00
" 1 & 2, with two ink rollers	70.00
" 3 & 4, with one ink roller	64.00
" 3 & 4, with two ink rollers	74.00
" 5 & 6, with one ink roller	68.00
" 5 & 6, with two ink rollers	78.00

Inking Implements, &c.

Distributors, with stand and frame, complete:	
Medium	$30.00
Super Royal	34.00
Nos. 1 & 2	38.00
" 3 & 4	42.00
" 5 & 6	46.00
Buckskin Rollers, complete:	
Medium	42.00
Super Royal	45.00
Imperial	52.50
Ink Rollers:	
6 and 8 inch stock, frame and handle	2.25
10 " " " "	2.63
12 " " " "	3.00
14 " " " two handles	3.50
16 " " " " "	4.00
18 " " " " "	4.50
Foolscap " " " "	5.00
Medium " " " "	6.00
Super Royal " " " "	6.50
No. 1 " " " "	7.00
" 2 " " " "	7.50
" 3 " " " "	8.00
" 4 " " " "	8.50
" 5 " " " "	9.00
" 6 " " " "	9.50
Roller Skin and Lining, sewed	5.63
Balls, large size, made up.....per pair	11.25
" middle " " " "	9.00
" small " " " "	7.50
Ball Skin and Lining	3.38
Ink Table, Foolscap	11.25
" Block	1.50
" Slice	1.13
" Brayer	.38
Glue, for rollers.....per lb.	.42
Tin Kettles, for composition, per set, from	6.75
Copper Kettles, " "	18.00
" " " to work by steam	90.00

Roller Moulds.

Of Cast Iron, accurately finished, finely polished, and furnished with bungs and centres, as follows:

Foolscap	Hand Press requires	30	in.	long	$18.50
Medium	" "	34	"		20.40
Super Royal	" "	36	"		21.60
No. 1	" "	38	"		22.80
" 2	" "	40	"		24.80
" 3	" "	42	"		25.20
" 4	" "	44	"		26.40
" 5	" "	46	"		27.60
" 6	" "	48	"		28.80
Mammoth	" "	50	"		30.00

Stereotype Blocks.

4to,	4 blocks	$15.00	with rule borders,		$30.00
8vo,	8 "	21.00	" " "		42.00
12mo,	12 "	22.50	" " "		45.00
18mo,	18 "	27.75	" " "		55.50
24mo,	24 "	33.00	" " "		66.00
32mo,	32 "	37.50	" " "		75.00
48mo,	48 "	45.00	" " "		90.00

Blocks in sections, to work with cuts, to order.
Blocks of iron and brass, to order.

Miscellaneous.

Parchments	$
Blankets, cloth, very fine, per yard	
" vulcanized india-rubber, per yard	
Gut Band, 3/8 inch diameter, 21 feet long	
Tape, 1/2 inch wide, per yard	.07
" 3/4 " " "	.08
" 1 1/8 " " "	.10
Bank and Horse, from	8.25
Rounce Straps, per set	1.88
Sheepsfoot Hammer	1.88

Miscellaneous.

Screw-driver	$ .75
Press Wrench	1.88
Screw "	2.50
Tympan "	1.13
Points with springs, per pair	.75
Points without springs, per pair	.48
Tympan Bolt and Nut	.57

Printing Inks, &c.

PARSONS, FLETCHER & CO'S FINE ENGLISH INKS, in 1, 2, 4 and 5 lb. cans, as follows:

Black and Colored, No. 1	
" " No. 2	
" " No. 3	
" " No. 4	
Carmine, in 4 oz. cans	

AMERICAN INKS:

News	
" Extra	
Fine Book	
Extra Fine Book	
Fine Ink	
Red and Brown	
Blue, Green, and Yellow	
Ultramarine	
Lake	
Gold Size	
Varnish	
Ultramarine Blue Powders	
Bronze Powders, all colors	
Stone and Muller	
Ink Mills	
Copperplate Ink.	
Lithographic Ink.	

Compositors' Department.

Imposing Stones,

ITALIAN MARBLE, *with Table and Drawers.*

		Single.	Double.
Foolscap	18×23	$28.00	18×46 $43.00
Medium	22×28	32.00	22×56 52.00
Super Royal	26×31	39.00	26×62 64.00
No. 1	24×33	39.00	24×66 64.00
" 2	25×36	43.00	25×72 71.00
" 3	26×38	48.00	26×76 78.00
" 4	27×40	53.00	27×80 84.00
" 5	28×42	58.00	28×84 93.00
" 6	29×45	62.00	29×90 101.00
Mammoth	38×47	86.00	

Cast Iron Imposing Beds,

With Table and Drawers.

		Single.	Double.
Foolscap	18×23	$35.00	18×46 $49.00
Medium	22×28	40.00	22×56 74.00
Super Royal	26×31	49.00	26×62 97.00
No. 1	24×33	49.00	24×66 95.00
" 2	25×36	54.00	25×72 108.00
" 3	26×38	60.00	26×76 119.00

Cast Iron Imposing Beds.

No. 4	27×40	$66.00	27×80	$130.00
" 5	28×42	72.00	28×84	141.00
" 6	29×45	78.00	29×90	157.00
Mammoth	38×47	108.00	38×94	214.00

Letter Boards.

Demy	17×22	$ .75
Medium	19×24	1.13
Royal	23×27	1.50
Super Royal	24×30	1.88
Imperial	27×36	2.25
Double Medium	28×40	2.62

Type Cases.

Best quality, seasoned, per pair	$3.50
" 2/3 size, "	3.00
Job, each	2.25
Half, each	1.25
Triple, each	2.25
Music	2.20
Greek	5.00
Rule	2.50

Blank, for Wood Type, to order.

Cabinets.

(*See cut, page* 70.)

With 6 pairs two-thirds size Cases	$26.00
" 8 " " " "	35.00
" 10 " " " "	45.00
" 10 " full " "	55.00
" 5 half Cases	10.50
" 10 "	18.50
" 15 "	27.75

Case Stands.

Single	$6.00
Double, without racks	7.00
" with "	8.50
Cast Iron, single, (see cut, page 69)	12.00
" double, without racks	18.00
" " with "	25.00

Galleys.

Common	5×15	$ .37
"	5½×18	.57
"	6×20	.75
"	7×22	.95
"	8×24	1.12
Octavo Slice	6×10 inside	2.00
Quarto "	8¾×13 "	2.50
Medium "	10×16 "	2.75
Royal "	12×18 "	3.00
Super Royal "	14×21 "	3.50
Imperial "	15×22 "	4.00
Republican "	18×25 "	5.00
Proof, single column, brass bottom		3.37
" double " " "		4.15
" single " " " and lined		4.87
" double " " " "		5.63
" single " all brass		8.50
" double " "		10.00

Chases.

WROUGHT IRON, WITH SHIFTING BARS.

	Size over all.	Per pair.
Foolscap	17¼×20	$15.00
Demy	20×25	18.00
Medium	22⅜×28¼	20.00
Super Royal	25¾×31¼	23.00
Imperial	24½×33¾	24.00
Double Medium	27½×40¼	27.00
Double Super Royal	32½×44½	31.00
No. 1 News	24½×33¾	19.00
" 2 "	25½×35¾	22 00
" 3 "	26¼×38¼	23.00
" 4 "	27¼×40¼	24.00
" 5 "	28¼×42¼	25.00
" 6 "	29¼×44¼	26.00

HALF CHASES—WROUGHT IRON.

	Size inside.	each.
Imperial, No. 1	15×21½	$6.75
" " 2	16×23¼	6.75

HALF CHASES—WROUGHT IRON.

Imperial, No. 3	17¼×24	$7.50
" " 4	18⅜×25	7.50
" " 5	19¼×26	7.50
" " 6	20¼×27	9.00
Broadside, Job	19×24	5.25

CAST-IRON CHASES.

Card	4×5	$ .48
"	4¼×6¼	.55
"	5× 7	.62
Billhead	6× 8	.75
"	8×10	.95
Job	9×12	1.12
"	10×14	1.26
"	14×17	1.65
"	18×24	1.80
Programme	5×16½	1.15
"	8×23½	1.65

Other sizes made to order.
Electrotype Chases made to order.

Furniture.

Cherry, all sizes, smaller than 2 line Pica. per yard	$ .05
Cherry, 2 to 5 line Pica. per yard	.07
" 5 to 12 " "	.08
" Side Stick "	.08
Pine, all sizes, smaller than 2 line Pica. per yard	.04
Pine, 2 line Pica and upwards, per yard	.05

Miscellaneous.

Composing Sticks, 6 and 8 inches	$1.50
" " for every additional inch	.18
Steel Composing Rule	.30
Mahogany Job Stick, 20 inches	2.25
Shooting Stick, brass	1.50
" " iron	1.13
" " hickory	.08
Mallet, hickory	.40
" " iron-bound	1.50
Planer	.40
" covered with cloth	.75
Quoins, hickory, per 100	.75
" box wood, "	1.00
Saw and Wooden Miter Box	2.25
Saw and Iron Miter Box	7.50
Shears, per pair	2.50
Lead-Cutter	4.50
Improved Brass Rule and Lead Cutter	7.50
Ditto, double lever (see cut, page 68)	15.00
Mitering Machine (see cut, page 68)	18.00
Candlesticks, per dozen	2.50
Snuffers, per pair	.30
Bellows	1.00
Bodkins	.18
" spring	.75
Proof Brush	1.50
Cord, per ball	.50

Warehouse Department.

Standing Presses.

Hydrostatic Presses (see cut, on page 90) from	$960.00
Steam Pumps for do. (see cuts, pp. 91, 92) from	800.00
Improved Geared Standing Press (see cut on page 93) from	800.00
Imp'd Iron Stand'g Press (see cut. p. 94) from	360.00
Imp'd Screw Standing Press (see cut p. 95)	160.00
Iron Standing Press (see cut on page 96)	120.00
Table Standing Press (see page 97)	

Pressing Boards.

Demy	17×22	$1.12
Medium	19×24	1.32
Royal	23×27	1.70
Super Royal	24×30	1.87

Pressing Boards.

Imperial	27×36	$2.62
Double Medium	28×40	3.00
Sheet Iron	from	3.50
Glazed Paper, per gross		
Improved Paper-Cutting Machine (see cut, p. 108)		75.00
Card Cutter, with 6 inch shears (see cut, p 112)		15.00
" " " 7 " " "		16.50
" " " 8 " " "		18.00
" " " 10 " " "		22.50
" " " 12 " " "		25.50
" " " 14 " " "		30.00
Peel		1.13
Drying Poles	per ft.	.05
Iron Bar for Standing Press	per lb.	.18

Wetting Department.

Lye and Wetting Troughs, &c.

Medium	$ 16.25
Super Royal	16.50
Imperial	19.50
Double Medium	22 50
[If lined with Lead, extra.]	
LYE BRUSH	1.13

Wetting Boards, &c.

Medium	19×24	$1.12
Royal	23×27	1.50
Super Royal	24×30	1.87
Imperial	27×36	2.25
Double Medium	28×40	2.62
PICK BRUSH		.40

Electrotype Department.

Hydraulic Press for Moulding (see cut, p. 119)	$1000.00
Toggle Joint Presses for Moulding (see cut, pages 120, 121) from	400.00
Brass Moulding Cases (see cut. page 122) "	15.00
Iron Steam Table for same, see page 124	
Copper Steam Wax Kettle	
Building Irons (copper and iron)	
Black-Leading Machine (see cut, page 123)	450.00
Electrotyper's Bellows	8.00
Pump and Hose	20.00
Battery from	40.00
Precipitating Trough "	40.00

Furnace Top and Melting Pot	$ 40.00
Furnace Front	60.00
Iron Melting Furnace, complete, lined with fire-brick from	150.00
Backing Pans (open or closed) with Stand (see cut, page 122)	100.00
Crane for lifting Backing Pan	75.00
Sawing and Dressing Table (see cut p. 133) from	240.00
Power Planing Machine and Saw, " 131	
Hand Shaving " " 132 from	160.00
Shootboard and Planes	30.00

Stereotype Department.

Plaster Process.

Cast-iron Melting Furnace, complete, lined with fire-brick from	$150.00
Cast-iron Furnace Top and Melting Pot	40.00
Cast-iron Furnace Front	60 00
Stirrer, Skimmer, Ladle	15.00
Casting Pans from	25.00
Crane for lifting same	75.00
Iron Mould for casting Frames	20.00
Thumb Screws for same per doz.	6.00
Stereotype Chases from	2.00
" Brushes "	2.50
Moulding Stone "	30.00
Sawing and Dressing Table (see cut p. 133) "	240.00
Power Planing Machine and Saw, " 131	
Hand Shaving " " 132 from	160.00
Shoot Board and 2 Planes	30.00
Trimming Block from	5.00

Papier Mache Process.

Drying Press (see cut, page 125)	$ 50.00
Melting Furnace, lined with fire-brick, " 129	60.00

Papier Mache Process.

Casting Mould	$120.00
Sawing and Dressing Table (see cut p. 133) from	240.00
Shaving Machine " 132 "	160.00
Shoot Board and 2 Planes	30.00
Brass Border Furniture per foot	1.50
Wood " " "	.10
Beating Brush	6.00
Oil, Chalk and other Brushes, each from	2.50

Clay Process.

Cast-iron Melting Furnace, lined with fire-brick (see cut, page 129)	$ 80.00
Screw Moulding Press (see cut, page 129)	150.00
2 Cast-iron Moulding Plates, 6 Cramps and 2 Gauge Wires	37.00
Leveling Bar and Trowel	12.00
Marble Top Table	22.50
Tongs, Pincers and 2 Lifting Irons	6.00
Shaving Machine (see cut page 132)	160.00
Shoot Board and 2 Planes	30.00
Stereotype Brushes from	2.50

Bookbinders' Department.

Book-Rolling Machine (see cut, page 98)	$400.00
Embossing and Smashing Presses (see cut, page 99) from	1,000.00
Embossing, Stamping and Gilding Presses (see cut, pages 101, 102)	200.00
Power Paper-Cutting Machine (see cut, page 104) from	1,150.00
Patent Book and Paper Trimming Machine (see cut, page 105)	1,000.00
Hand Plow Paper-Cutting Machine (see cut, page 107)	100.00
Improved Paper-Cutting Machine (see cut, page 108)	75.00
Circular Cutters for cutting Mill Boards (see cut, page 110) from	400.00
Ruling Machine (see cut, page 311)	240.00
Shears and Table for cutting Binders' Board (see cut, pages 111 and 112) from	60.00
Piercing Machine for Pamphlets (see cut, page 114)	50.00
Squaring Shears, per inch	2.00
Finishing Press	3.25
Cutting Press and Plow	15.00
Knife for Plow	.75
Pin for do.	1.00
Backing Hammer	2.00
Compasses	1.00
Plow and four boards for squaring paper	50.00
Screw for do., with iron point and nut	5.00
Sewing Bench	$2.75
Polisher, cast steel	5.00
Agate Burnisher	2.50
Hand Shears	2.50
Backing Boards, per pair	
" " per inch	.18
Cutting Board, per foot	.05
Beating Hammer	3.00
Pressing Boards, 6×10½	.40
" " 8×10½	.47
" " 10×13	.57
" " 10×16	.75
" " 13×20	.95
" " 17×22	1.13
" " 20×24	1.32
" " 24×33	1.88
" " 26×40	3.38
Brass-Bound Boards, for pressing Muslin Work, with a case to hold them	52.50

[These Boards are made in the most superior manner, bound with Brass or Steel. The top and bottom board is flush on one side.]

Lettering Palettes, Gold Cushion, with Drawer, Finishing Stand to attach to table, Finishing Stand, larger size for blank work, Hickok's Ruling Pens, Glue, Gold Leaf, Varnish, Twine, Thread, Binders' Muslin, Marbled Paper, Binders' Boards, Glue Pot, Paring Knife and Folder, &c., &c.

Printing Type Department.

Prices of Printing Type.

Sizes.	Roman, Italic and German.	Antique, Condensed, Title, Borders, &c.	Shaded, Ornamented, Script, &c.
12 Line Pica ℔ lb	$ .44	$ .50	$ .56
11 " " "	.44	.50	.56
10 " " "	.46	.52	.58
9 " " "	.46	.52	.58
8 " " "	.48	.54	.60
7 " " "	.48	.54	.60
6 " " "	.52	.58	.64
5 " " "	.52	.58	.64
4 " " "	.52	.60	.72
Canon "	.52	.60	.72
Meridian "	.54	.60	.78
Dbl. Paragon "	.54	.60	.78
" Great Primer "	.54	.62	.82
" Columbian "	.54	.62	.82
" English "	.54	.64	.86
" Pica "	.54	.64	.90
" Small Pica "	.54	.64	.90
Paragon "	.56	.66	.94
Great Primer "	.56	.66	1.00
Columbian "	.56	.70	1.00
English "	.56	.70	1.12
Pica "	.56	.78	1.16
Small Pica "	.58	.78	1.22
Long Primer "	.62	.82	1.30
Bourgeois "	.66	.90	1.44
Brevier "	.70	1.00	1.60
Minion "	.76	1.12	1.80
Nonpareil "	.84	1.28	2.00
Agate "	1.00	1.60	2.40
Pearl "	1.40	2.00	2.80
Diamond "	1.80	2.80	3.20

Superiors.

Nonpareil	℔ lb	$2.00
Minion	"	1.80
Brevier	"	1.60
Bourgeois	"	1.44
Long Primer	"	1.30
Small Pica	"	1.22
Pica	"	1.16

Signs.

Nonpareil	℔ lb	$1.28
Minion	"	1.12
Brevier	"	1.00
Bourgeois	"	.90
Long Primer	"	.82
Small Pica	"	.78
Pica	"	.74

Piece Fractions.

Brevier	℔ lb	$3.60
Bourgeois	"	3.20
Long Primer	"	2.80
Small Pica	"	2.40
Pica	"	2.00

Leads.

Six to Pica and thicker	℔ lb	$ .40
Seven to Pica	"	.45
Eight to Pica	"	.54
Nine to Pica	"	.68
Ten to Pica	"	.90

Miscellaneous.

Flourishes	℔ lb	$1.28
Pearl Check	"	1.00
Spaee Rules	"	1.60
Slugs	"	.40
Quotations	"	.40

Circular Quadrats, (see page 20.)

Directions

PAGE

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Description of the Type-Revolving Printing Machine.

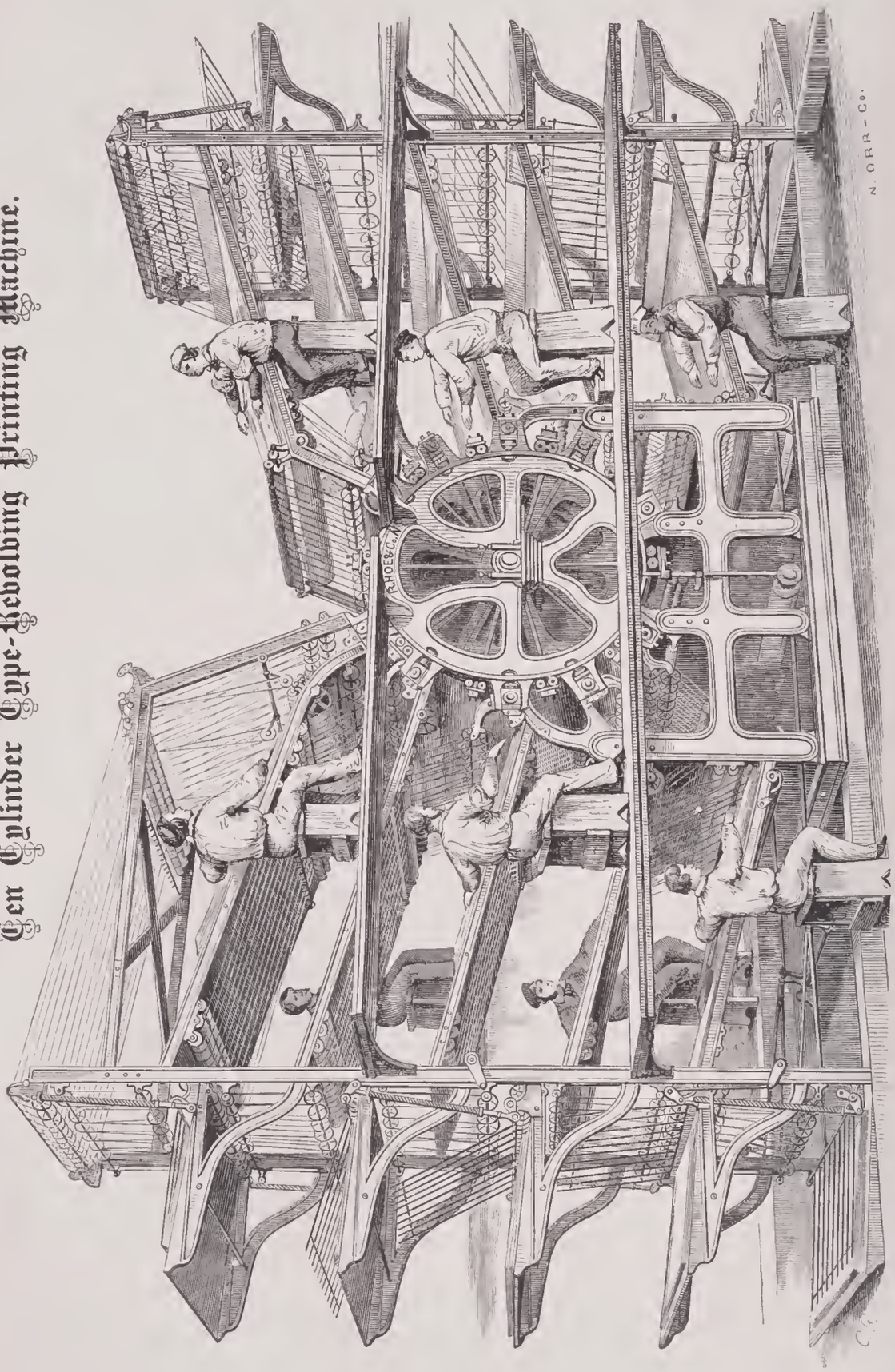
The Type-Revolving Printing Machine manufactured by our firm was invented by Col. Richard M. Hoe. It is, as its name indicates, on the rotary principle; that is, the form of type is placed on the surface of a horizontal revolving cylinder of about four and a half feet in diameter. The form occupies a segment of only about one-fourth of the surface of the cylinder, the remainder being used as an ink-distributing surface. Around this main cylinder, and parallel with it, are placed smaller impression cylinders, varying in number from two to ten, according to the size of the machine. The large cylinder being put in motion, the form of types is carried successively to all the impression cylinders, at each of which a sheet is introduced and receives the impression of the types as the form passes. Thus as many sheets are printed at each revolution of the main cylinder as there are impression cylinders around it. One person is required at each impression cylinder to supply the sheets of paper, which are taken at the proper moment by fingers or grippers, and after being printed are conveyed out by tapes and laid in heaps by self-acting flyers, thereby dispensing with the hands required in ordinary machines to receive and pile the sheets. The grippers hold the sheet securely, so that the thinnest newspaper may be printed without waste.

The ink is contained in a fountain placed beneath the main cylinder, and is conveyed by means of distributing rollers to the distributing surface on the main cylinder. This surface being lower, or less in diameter than the form of types, passes by the impression cylinder without touching. For each impression cylinder there are two inking rollers, receiving their supply of ink from the distributing surface of the main cylinder, which rise and ink the form as it passes under them, then again fall to the distributing surface.

Each page of the paper is locked up on a detached segment of the large cylinder which segment constitutes its bed and chase. The column rules run parallel with the shaft of the cylinder, and are consequently straight, while the head, advertising and dash rules have the form of segments of a circle. The column rules are in the shape of a wedge, with the thin part directed toward the axis of the cylinder, so as to bind the types securely. These wedge-shaped column rules are held in their place by tongues projecting at intervals along their length, and sliding in rebated grooves cut crosswise in the face of the bed. The spaces in the grooves between the column rules are accurately fitted with sliding blocks of metal, even with the surface of the bed; the ends of these blocks being cut away underneath to receive a projection on the sides of the tongues of the column rules. The locking-up is effected by means of screws at the foot of each page, by which the type is held as securely as in the ordinary manner upon a flat bed and is much less liable to accident.

The speed of these machines is limited only by the ability of the feeders to supply the sheets. The Four cylinder machine is run at a rate of over ten thousand per hour, the Six cylinder machine fifteen thousand an hour, the Eight cylinder machine twenty thousand, and Ten cylinder machine twenty-five thousand. This system combines the greatest speed in printing, durability of machinery, and economy of labor.

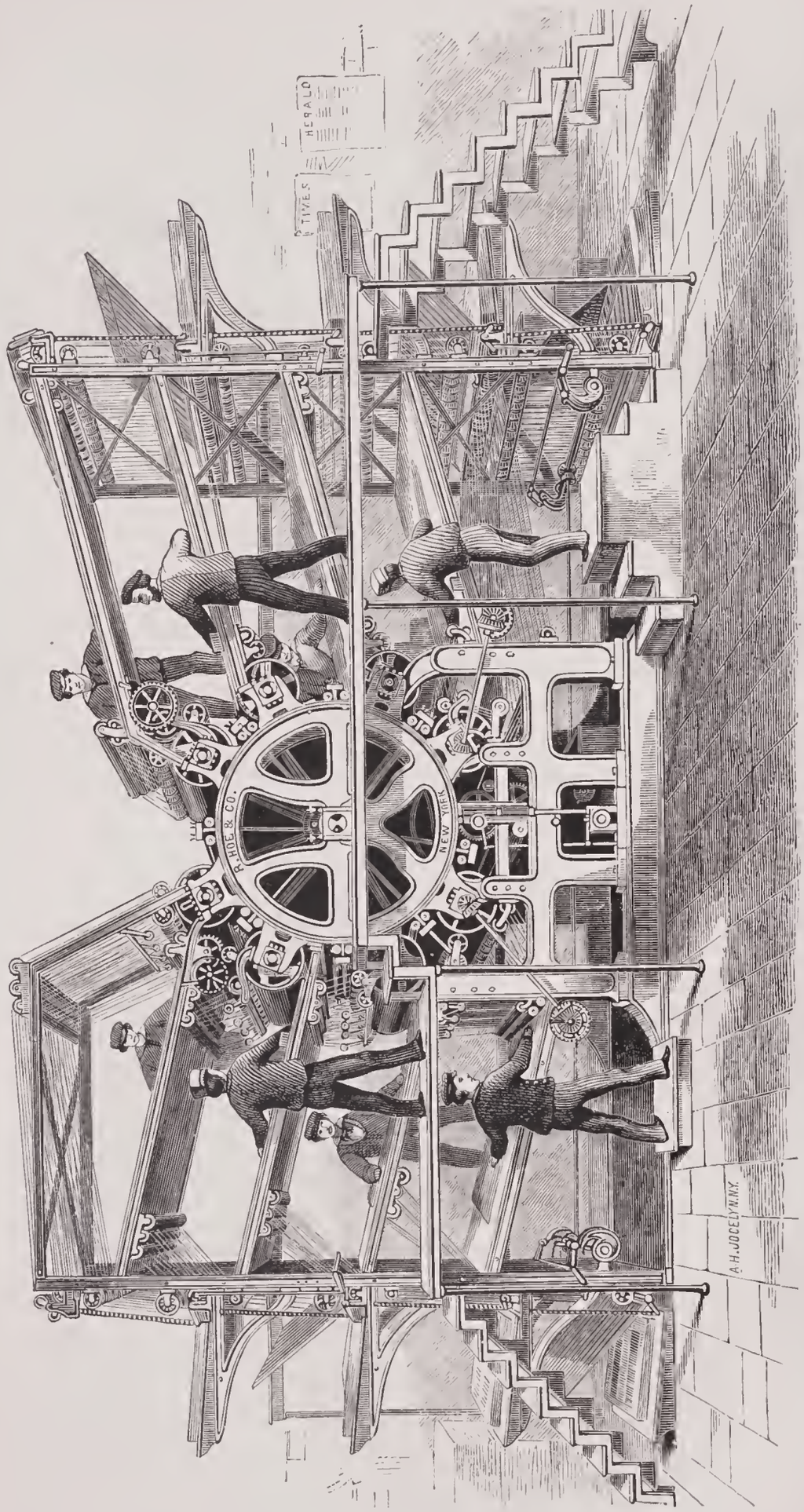
Ten Cylinder Type-Revolving Printing Machine.



Dimensions, &c. of Ten Cylinder Rotary Printing Machines.

	FOLIO SHEET.			QUARTO SHEET.				
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Width between Side-Frames of Machine	36 in.	41 in.	46 in.	51 in.	56 in.	61 in.	66 in.	71 in.
Size of page of matter	26×17½ "	.....	.....	14×19 "	16×21½ "	17½×24 "	.....	.....
Whole size of matter	26×36 "	.....	.....	29×40 "	33×45 "	36 ×50 "	.....	.....
Width of centre margins	1 "	.....	.....	1 and 2 "	1 and 2 "	1 and 2 "	.....	.....
Width of outside margins	1 "	.....	.....	1 "	1 "	1 "	.....	.....
Size of Sheet of Paper	28×38 "	.....	.....	31×42 "	35×47 "	38 ×52 "	.....	.....
Size of Rubber Blanket	30×40 "	.....	.....	33×44 "	37×49 "	40 ×54 "	.....	.....
Size of Cloth Blanket	30×40 "	.....	.....	34×44 "	40×49 "	40 ×54 "	.....	.....
Length of Sheet-Flyers	37 "	.....	.....	31 "	35 "	37 "	.....	.....
Length of Machine	31 ft. 0 "	.....	.....	31 ft. 0 "	31 ft. 0 "	31 ft. 0 "	.....	.....
Width of Machine, including Platforms	14 " 6 "	.....	.....	15 " 9 "	16 " 2 "	16 " 7 "	.....	.....
Height of Machine	18 " 0 "	.....	.....	15 " 6 "	17 " 2 "	18 " 0 "	.....	.....
Length of Room required	37 " 0 "	.....	.....	37 " 0 "	37 " 0 "	37 " 0 "	.....	.....
Width " "	18 " 6 "	.....	.....	20 " 0 "	20 " 6 "	21 " 0 "	.....	.....
Height " "	18 " 6 "	.....	.....	16 " 0 "	17 " 8 "	18 " 6 "	.....	.....
Width of Front Platform	5 " 1 "	.....	.....	5 " 0 "	5 " 0 "	5 " 0 "	.....	.....
Width of Rear Platform	11 6 " 0 "	.....	.....	6 " 0 "	6 " 0 "	6 " 0 "	.....	.....
Size of Side-Frame	4.×8. 2×1.3	.....	.....	11.×8. 2×1.3	11.×8. 2×1.3	11.×8. 2×1.3	.....	.....
Size of Main Cylinder	.9 dia.×4.7	.....	.....	4.9 dia.×5.10	4.9 dia.×6.3	4.9 dia.×6.8	.....	.....
Weight of heaviest piece	2,500 lbs.	.....	.....	2,500 lbs.	2,500 lbs.	2,500 lbs.	.....	.....
Weight of Press boxed	52,000 "	.....	.....	58,000 "	60,000 "	62,000 "	.....	.....
Number of Type-Beds	4	.....	.....	8	8	8	.....	.....
Size of Type-Bed Tables	21×28 in.	.....	.....	18×24 in.	18×24 in.	21×28 in.	.....	.....
Power required to drive Machine	6 H. P.	.....	.....	7 H. P.	7 H. P.	8 H. P.	.....	.....
Price of Machine	$41.250.	$42.750.	$44.250.	$46,500.	$48,000.	$49,500.	$51,000.	$52,500.
" extra Type-Bed	375.	450.	525.	215.	300.	340.	375.	415.
" Type-Bed Tables	18.	20.	23.	12.	15.	18.	20.	20.
" Brass Galleys	12.	12.	12.	10.	12.	12.	12.	12.
" Proof Press	110.	110.	110.	110.	110.	110.	110.	110.
" Form Truck	25.	30.	30.	20.	20.	25.	25.	30.
" Boxing and Carting	570.	600.	630.	660.	690.	720.	750.	780.

TERMS, Cash at manufactory in New-York.

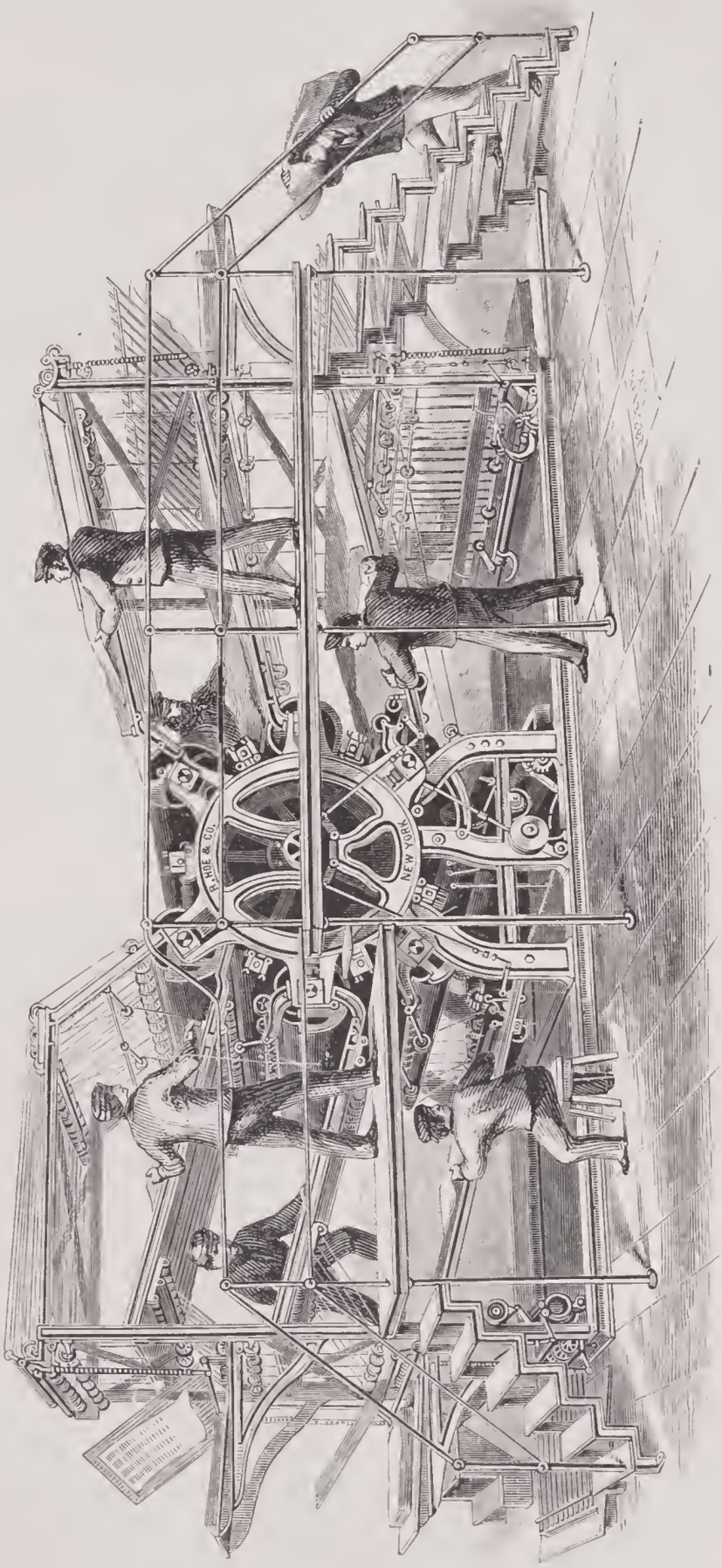


Eight Cylinder Type-Revolving Printing Machine.

Dimensions, &c. of Eight Cylinder Type-Revolving Printing Machine.

	FOLIO SHEETS.			QUARTO SHEETS.				
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Width between Side-Frames of Machine	36 in.	41 in.	46 in.	51 in.	56 in.	61 in.	66 in.	71 in.
Size of Page of matter	26×18½ "	31×22½ "	36×29½ "	14×19 "	16×21½ "	18×24 "	20×26½ "	22×29 "
Whole size of matter	26×38 "	31×46 "	36×60 "	29×40 "	33×45 "	37×50 "	41×55 "	45×60 "
Width of centre margins	1 "	1 "	1 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "
Width of outside margins	1 "	1 "	1 "	1 "	1 "	1 "	1 "	1 "
Size of Sheet of Paper	28×40 "	33×48 "	38×62 "	31×42 "	35×47 "	39×52 "	43×57 "	47×62 "
Size of Rubber Blanket	30×42 "	35×50 "	40×64 "	33×44 "	37×49 "	41×54 "	45×59 "	49×64 "
Size of Cloth Blanket	30×43 "	35×50 "	40×65 "	34×44 "	38×49 "	42×54 "	50×59 "	50×64 "
Length of Sheet-Flyers	40 "	47 "	59 "	31 "	35 "	39 "	43 "	47 "
Length of Machine	31 ft. 0 in.	31 ft. 6 "	33 ft. 6 "	31 ft. 0 "	31 ft. 0 "	31 ft. 0 "	31 ft. 0 "	31 ft. 6 "
Width of Machine, including Platforms	11 " 6 "	11 " 11 "	12 " 4 "	12 " 9 "	13 " 2 "	13 " 7 "	14 " 0 "	14 " 5 "
Height of Machine	15 " 6 "	18 " 0 "	22 " 0 "	15 " 0 "	15 " 0 "	15 " 2 "	16 " 6 "	17 " 10 "
Length of Room required	37 " 0 "	38 " 6 "	40 " 0 "	37 " 0 "	37 " 0 "	37 " 0 "	37 " 0 "	37 " 6 "
Width " "	15 " 6 "	16 " 0 "	16 " 6 "	17 " 0 "	17 " 6 "	18 " 0 "	18 " 6 "	19 " 0 "
Height " "	16 " 0 "	18 " 6 "	22 " 6 "	15 " 6 "	15 " 6 "	15 " 8 "	17 " 0 "	18 " 4 "
Width of front Platform	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "
Width of rear Platform	5 " 6 "	5 " 6 "	5 " 6 "	5 " 6 "	5 " 6 "	5 " 6 "	5 " 6 "	5 " 6 "
Size of Side-Frame	10×8.2×1.3	10×8.2×1.3	11×8.2×1.3	10×8.2×1.3	10×8.2×1.3	10×8.2×1.3	10×8.2×1.3	10×8.2×1.3
Size of Main Cylinder	4.9 dia.×4.7	4.9dia.×5.	4.9 dia.×5.5	4.9 dia.×5.10	4.9 dia.×6.3	4.9 dia.×6.8	4.9 dia.×7.1	4.9 dia×7.6
Weight of heaviest Piece	2,200 lbs.	2,200 lbs.	2,200 lbs.	2,200 lbs.	2,200 lbs.	2,200 lbs.	2,300 lbs.	2,300 lbs.
Weight of Press boxed	42,000 "	44,000 "	46,000 "	48,000 "	50,000 "	52,000 "	54,000 "	56,000 "
Number of Type-Beds	4	4	4	8	8	8	8	8
Size of Type-Bed Tables	21×28 in.	24×32 in.	30×40 in.	18×24 in.	18×24 in.	21×28 in.	24×32 in.	24×32 in.
Power required to drive Machine	5 H. P.	5 H. P.	5 H. P.	6 H. P.	6 H. P.	6 H. P.	7 H. P.	7 H. P.
Price of Machine	$32,100.	$33,300.	$34,500.	$36,600.	$37,800.	$39,000.	$40,200.	$41,400.
" extra Bed	375.	450.	525.	215.	300.	340.	375.	415.
" Bed Table	18.	20.	23.	15.	15.	18.	20.	20.
" Brass Galley	12.	12.	12.	12.	12.	12.	12.	12.
" Proof Press	110.	110.	110.	110.	110.	110.	110.	110.
" Form Truck	25.	30.	30.	20.	20.	25.	25.	30.
" Boxing and Carting	475.	500.	525.	550	575.	600.	625.	650.
Remarks								

TERMS, Cash at manufactory in New-York.

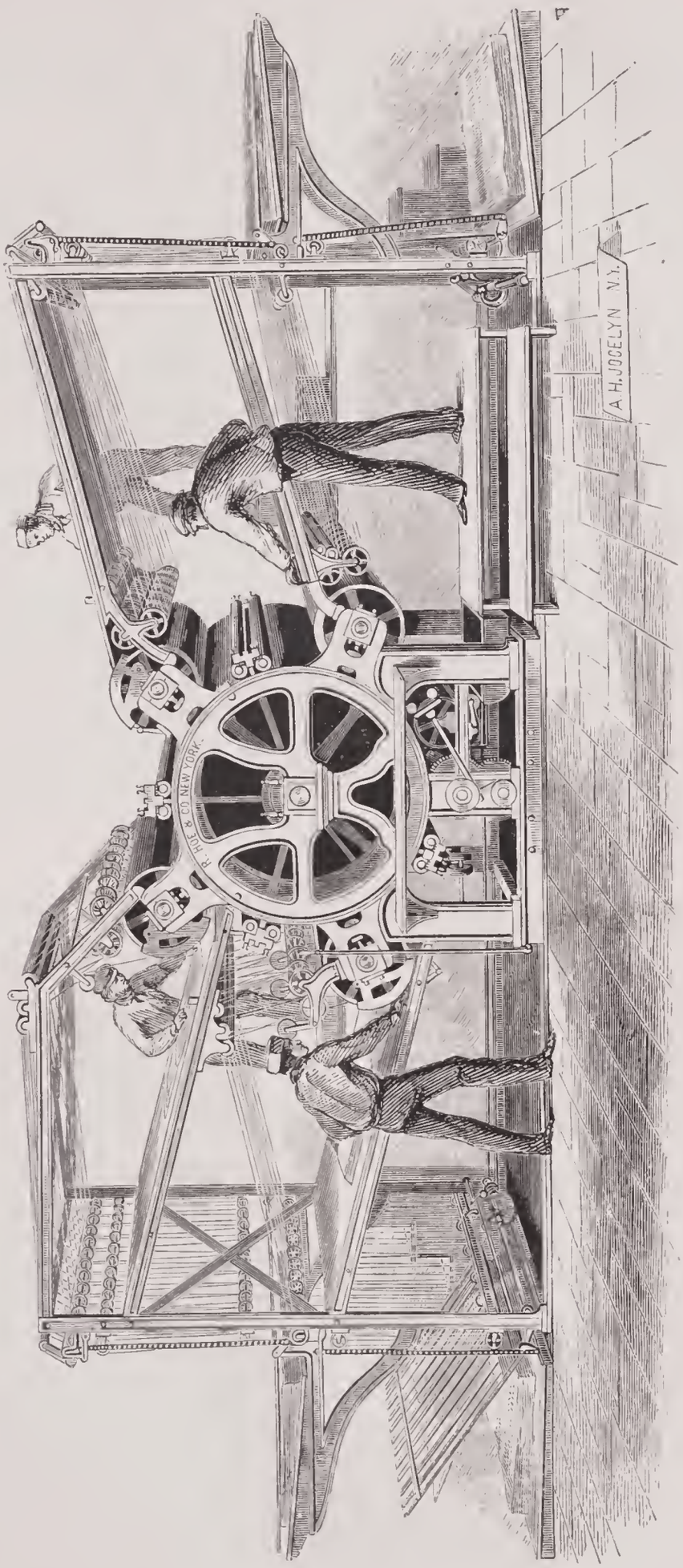


Six Cylinder Type-Revolving Printing Machine.

Dimensions, &c. of Six Cylinder Rotary Printing Machine.

	FOLIO SHEETS.			QUARTO SHEETS.				
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Width between Side-Frames of Machine	36 in.	41 in.	46 in.	51 in.	56 in.	61 in.	66 in.	71 in.
Size of page of matter	26×19½ "	31×24½ "	36×29½ "	14×19 "	16×21½ "	18×24 "	20×26½ "	22×29 "
Whole size of matter	26×40 "	31×50 "	36×60 "	29×40 "	33×45 "	37×50 "	41×55 "	45×60 "
Width of centre margins	1 "	1 "	1 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "
Width of outside margins	1 "	1 "	1	1 "	1 "	1 "	1 "	1 "
Size of Sheet of Paper	32×42 "	33×52 "	38×62 "	31×42 "	35×47 "	39×52 "	43×57 "	47×62 "
Size of Rubber Blanket	30×44 "	35×54 "	40×64 "	33×44 "	37×49 "	41×54 "	45×59 "	49×64 "
Size of Cloth Blanket	30×45 "	35×54 "	40×65 "	34×44 "	38×49 "	42×54 "	46×59 "	54×64 "
Length of Sheet-Flyers	42 "	50 "	59 "	31 "	35 "	39 "	43 "	47 "
Length of Machine	28 ft. 0 "	29 ft. 0 "	32 ft. 0 "	28 ft. 0 "	28 ft. 0 "	28 ft. 0 "	28 ft. 0 "	28 ft. 0 "
Width of Machine, including Platforms	10 " 0 "	10 " 5 "	10 " 10 "	11 " 3 "	11 " 3 "	12 " 1 "	12 " 6 "	13 " 0 "
Height of Machine	12 " 6 "	14 " 4 "	16 " 7 "	11 " 3 "	11 " 3 "	11 "10 "	12 "10 "	13 "10 "
Length of Room required	34 " 0 "	36 " 0 "	39 " 0 "	34 " 0 "	34 " 0 "	34 " 0 "	34 " 0 "	34 " 0 "
Width " "	14 " 0 "	14 " 6 "	15 " 0 "	15 " 6 "	16 " 0 "	16 " 6 "	17 " 0 "	17 " 6 "
Height " "	13 " 0 "	15 " 0 "	17 " 0 "	13 " 0 "	13 " 0 "	13 " 0 "	13 " 6 "	14 " 6 "
Width of front Platform	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "	2 " 6 "
Width of rear Platform	4 " 0 "	4 " 0 "	4 " 0 "	4 " 0 "	4 " 0 "	4 " 0 "	4 " 0 "	4 " 0 "
Size of Side-Frames	3.2×6.5×1.	3.2×6.5×1.	3.3×7.3×1.	3.2×6.5×1.	3.2×6.5×1.	3.2×6.5×1.	3.2×6.5×1.	3.2×6.5×1.
Size of Main Cylinder	3.9 dia. ×4.5	3.9 dia. ×4.10	3.9 dia. ×5.3	3.9 dia. ×5.2	3.9 dia. ×6.1	3.9 dia. ×6.6	3.9 dia. ×6.11	3.9 dia. ×7.4
Weight of heaviest Piece	1,400 lbs.	1,400 lbs.	1,400 lbs.	1,600 lbs.	1,600 lbs.	1,600 lbs.	1,700 lbs.	1,700 lbs.
Weight of Press boxed	27,000 "	29,000 "	31,000 "	33,000 "	35,000 "	37,000 "	39,000 "	41,000 "
Number of Type-Beds	4	4	4	4	4	4	4	4
Size of Type-Bed Tables	24×32 in.	27×36 in.	30×40 in.	18×24 in.	18×24 in.	21×28 in.	24×32 in.	24×32 in.
Power required to drive Machine	3 H. P.	3 H. P.	3 H. P.	4 H. P.	4 H. P	4 H. P.	5 H. P.	5 H. P.
Price of Machine	$24,000.	$24,900.	$25,800.	$27,600.	$28,500.	$29,400.	$30,300.	$31,200
" extra Bed	375.	450.	525.	215.	300.	340.	375.	415.
" Bed Table	18.	20.	23.	15.	15.	18.	20.	20.
" Brass Galley	12.	12.	12.	12.	12.	12.	12.	12.
" Proof Press	110.	110.	110.	110.	110.	110.	110.	110.
" Form Truck	25.	30.	30.	20.	20.	25.	25.	30.
" Boxing and Carting	320.	400.	420.	440.	460.	480.	500.	520.

TERMS, Cash at manufactory in New-York.

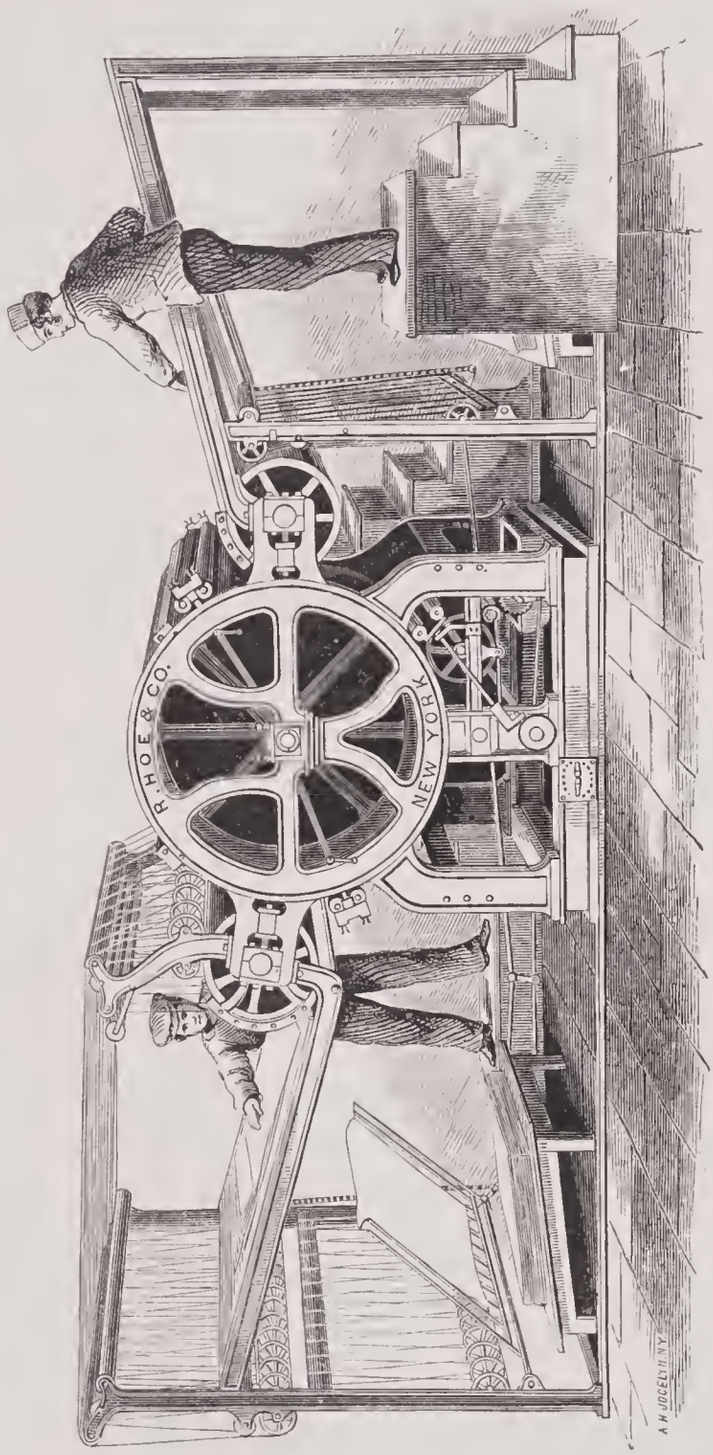


Four Cylinder Type-Revolving Printing Machine.

Dimensions, &c. of Four Cylinder Rotary Printing Machine.

	FOLIO SHEETS.			QUARTO SHEETS.				
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Width between Side-Frames of Machine	36 in.	41 in.	46 in.	51 in	56 in.	61 in.	66 in.	71 in.
Size of page of matter	26×19½ "	31×24½ "	36×29½ "	14×19 "	16×21½ "	18×24 "	20×26½ "	22×29 "
Whole size of matter	26×40 "	31×50 "	36×60 "	29×40 "	33×45 "	37×50 "	41×55 "	45×60 "
Width of centre margins	1 "	1 "	1 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "
Width of outside margins	1 "	1 "	1 "	1 "	1 "	1 "	1 "	1 "
Size of Sheet of Paper	28×42 "	33×52 "	38×62 "	31×42 "	35×47 "	39×52 "	43×57 "	47×62 "
Size of Rubber Blanket	30×44 "	35×54 "	40×64 "	33×44 "	37×49 "	41×54 "	45×59 "	49×64 "
Size of Cloth Blanket	30×45 "	35×54 "	40×65 "	34×44 "	38×49 "	42×54 "	46×59 "	54×64 "
Length of Sheet-Flyers	42 "	50 "	59 "	31 "	35 "	39 "	43 "	47 "
Length of Machine	27 ft. 0 "	29 ft. 0 "	32 ft. 0 "	25 ft. 4 "	26 ft. 0 "	26 ft. 8 "	27 ft. 4 "	28 ft. 0 "
Width of Machine, including Platform	7 " 3 "	7 " 8 "	8 " 1 "	8 " 6 "	8 " 11 "	9 " 4 "	9 " 9 "	10 " 2 "
Height of Machine	9 " 6 "	9 " 9 "	11 " 6 "	9 " 6 "	9 " 6 "	9 " 6 "	9 " 6 "	9 " 6 "
Length of Room required	33 " 0 "	36 " 0 "	39 " 0 "	31 " 4 "	32 " 0 "	32 " 8 "	33 " 4 "	34 " 0 "
Width " "	11 " 0 "	11 " 6 "	12 " 0 "	12 " 6 "	13 " 0 "	13 " 6 "	14 " 6 "	15 " 6 "
Height " "	11 " 6 "	11 " 6 "	12 " 0 "	11 " 6 "	11 " 6 "	11 " 6 "	11 " 6 "	11 " 6 "
Width of rear Platform	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "
Size of Side-Frame	6.7×6.2×1.	6.7×6.2×1.	6.8×7.×1.	6.7×6.2×1.	6.7×6.2×1.	6.7×6.2×1.	6.7×6.2×1.	6.7×6.2×1.
Size of Main Cylinder	3.9 dia.×4.5	3.9 dia.×4.10	3.9 dia.×5.3	3.9 dia.×5.8	2.9 dia.×6.1	3.9 dia.×6.6	3.9 dia.×6.11	3.9 dia.×7.4
Weight of heaviest piece	1,000 lbs.	1,000 lbs	1,000 lbs.	1,600 lbs.	1,600 lbs.	1,600 lbs.	1,700 lbs.	1,700 lbs.
Weight of Press boxed	18,500 "	20,000 "	21,500 "	23,000 "	24,500 "	26,000 "	27,500 "	29,000 "
Number of Type-Beds	4	4	4	8	8	8	8	8
Size of Type-Bed Tables	24×32 in.	27×36 in.	30×40 in.	18×24 in.	18×34 in	21×28 in.	24×32 in.	24×32 in.
Power required to drive Machine	2 H. P.	2 H. P.	2 H. P.	2½ H. P.	2½ H. P.	2½ H. P.	3 H. P.	3 H. P.
Price of Machine	$16,500.	$17,250.	$18,000.	$19,500.	$20,250.	$21,000.	$21,750.	$22,500.
" extra Bed	375.	450.	525.	215.	300.	240.	375.	415.
" Bed Table	18.	20.	22.	15.	15.	18.	20.	20.
" Brass Galley	12.	12.	12.	12.	12.	12.	12.	12.
" Proof Press	110.	110.	110.	110.	110.	110.	110.	110.
" Form Truck	25.	30.	30.	20.	20.	25.	25.	30.
" Boxing and Carting	285.	300.	315.	330.	345.	360.	375.	390.

TERMS, Cash at manufactory in New-York.

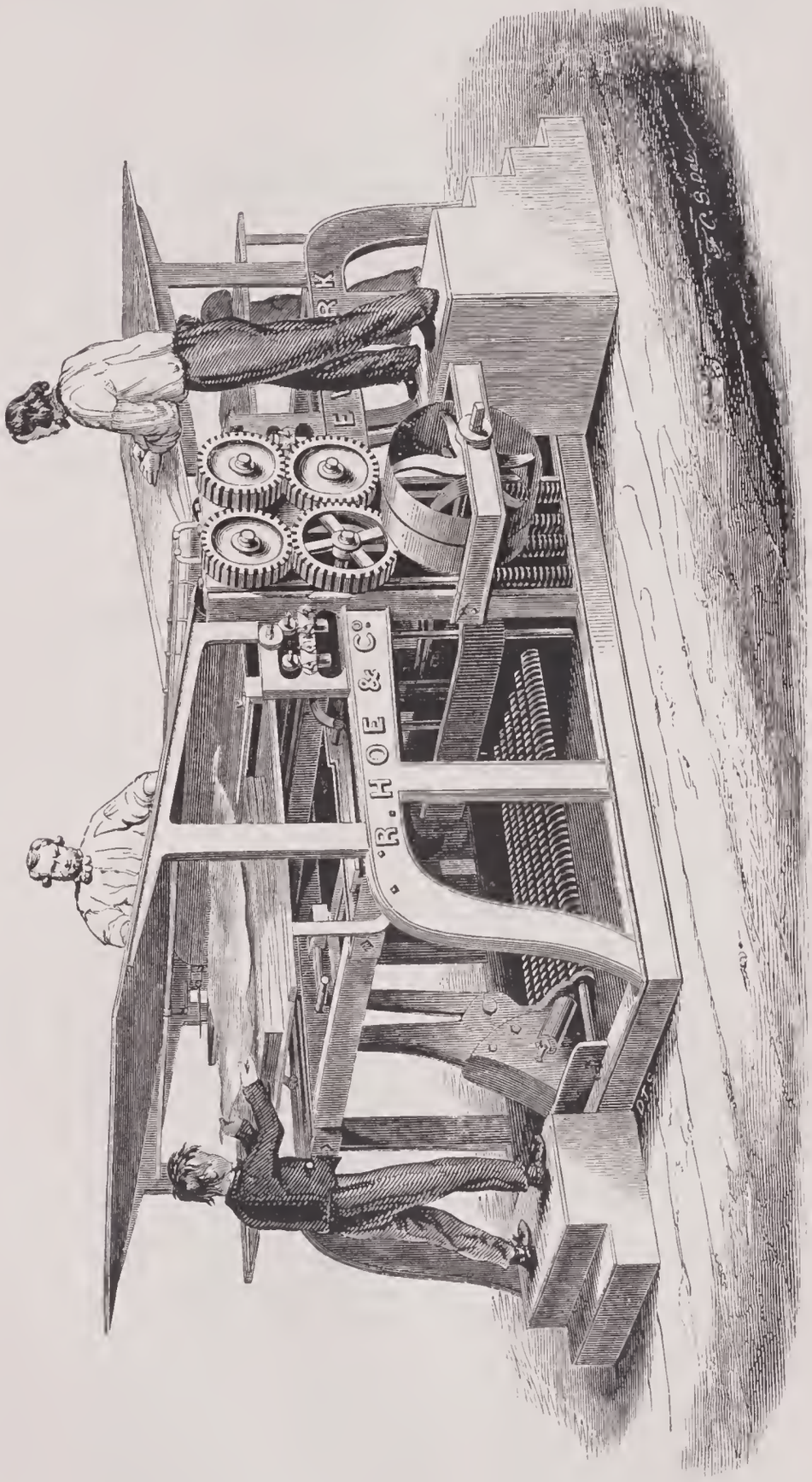


Two Cylinder Type-Revolving Printing Machine.

Dimensions, &c. of Two Cylinder Rotary Printing Machines.

	FOLIO SHEET.			QUARTO SHEET.				
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Width between Side-Frames of Machines..	36 in.	41 in	46 in.	51 in.	56 in.	61 in.	66 in.	71 in
Size of page of matter.....	26×19½ "	31×24½ "	36×29½ "	14×19 "	16×21½ "	18×24 "	20×26½ "	22×29 "
Whole size of matter.....	26×40 "	31×50 "	36×60 "	29×40 "	33×45 "	37×50 "	41×55 "	45×60 "
Width of centre margins.....	1 "	1 "	1 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "	1 and 2 "
Width of outside margins.....	1 "	1 "	1 "	1 "	1 "	1 "	1 "	1 "
Size of Sheet of Paper.....	28×42 "	33×52 "	38×62 "	31×42 "	35×47 "	39×52 "	43×57 "	47×62 "
Size of Rubber Blanket.....	30×44 "	35×54 "	40×64 "	33×44 "	37×49 "	41×54 "	45×59 "	49×64 "
Size of Cloth Blanket.....	30×45 "	35×54 "	40×65 "	34×44 "	38×49 "	42×54 "	46×59 "	54×64 "
Length of Sheet Flyers.....	42 "	50 "	59 "	31 "	35 "	39 "	43 "	47 "
Length of Machines.....	19 ft. 0 "	19 ft. 0 "	20 ft. 8 "	19 ft. 0 "	19 ft. 0 "	19 ft 0 "	19 ft. 0 "	19 ft. 0 "
Width of Machines, including Platforms...	7 " 3 "	7 " 8 "	8 " 1 "	8 " 6 "	8 " 11 "	9 " 4 "	9 " 9 "	10 " 2 "
Height of Machines.....	7 " 4 "	7 " 4 "	7 " 8 "	7 " 4 "	7 " 4 "	7 " 4 "	7 " 4 "	7 " 4 "
Length of Room required.....	25 " 0 "	25 " 0 "	27 " 0 "	25 " 0 "	25 " 0 "	25 " 0 "	25 " 0 "	25 " 0 "
Width " "	11 " 0 "	11 " 6 "	12 " 0 "	12 " 6 "	13 " 0 "	13 " 6 "	14 " 6 "	15 " 6 "
Height " "	9 " 0 "	9 " 0 "	9 " 6 "	9 " 0 "	9 " 0 "	9 " 0 "	9 " 0 "	9 " 0 "
Width of rear Platform.....	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "	3 " 0 "
Size of Side-Frame.....	6×6. 5×1.	6×6. 5×1.	6×7. 2×1.	6×6. 5×1.	6×6. 5×1.	6×6. 5×1.	6×6. 5×1.	6×6. 5×1.
Size of Main Cylinder.....	3.9 dia.×4.5	3 9 dia.×4.10	3.9 dia.×5.3	3.9 dia.×5.8	3.9 dia ×6.1	3.9 dia.×6.6	3.9 dia.×6.11	3.9 dia.×7.4
Weight of heaviest piece.....	1,000 lbs.	1,000 lbs.	1,000 lbs.	1,600 lbs.	1,600 lbs.	1,600 lbs.	1,700 lbs.	1,700 lbs.
Weight of Press boxed.....	14,000 "	15,000 "	16,000 "	17,000 "	18,000 "	19,000 "	20,000 "	21,000 "
Number of Type-Beds.....	4	4	4	8	8	8	8	8
Size of Type-Bed Tables.....	24×32 in.	27×36 in.	30×40 in.	18×24 in.	18×24 in.	21×28 in.	24×32 in.	24×32 in.
Power required to drive Machine.....	1 H. P.	1 H. P.	1 H. P.	1½ H. P.	1½ H. P.	1½ H. P.	2 H. P.	2 H. P.
Price of Machine.....	$9,000.	$9,750.	$10,500.	$12,000.	$12,750.	$13,500.	$14,250.	$15,000.
" extra Type-Bed	375.	450.	525.	215.	300.	240.	375.	415.
" Type-Bed Tables.....	18.	20.	23.	15.	15.	18.	20.	20.
" Brass Galleys.....	12.	12.	12.	12.	12.	12.	12.	12.
" Proof Press.....	110.	110.	110.	110.	110.	110.	110.	110.
" Form Truck.....	25.	30.	30.	20.	20.	25.	25.	30.
" Boxing and Carting.....	190.	200.	210.	220.	230.	240.	250.	260.

TERMS, Cash at manufactory in New-York.



Double Cylinder Printing Machine.

Double Cylinder Printing Machine.

(See opposite page.)

In this machine the form is placed on a flat bed, and the impression taken by means of two cylinders, each of which alternately takes a sheet and receives an impression from the form while it is passing under them. The sheets are supplied by two attendants. The self sheet-flying apparatus is furnished in all cases, dispensing entirely with the fly-boys.

The large amount of printing ordinarily done on these presses, and the consequent speed required, have rendered necessary greatly increased strength in all the parts, together with simplicity in the mechanical arrangements, and the utmost perfection of workmanship. The concussion of the bed against the springs which are placed at each end of the machine to overcome the momentum, is obviated by means of adjustable India-rubber buffers placed at the points of contact, and which add to the lively and certain action of the spiral springs.

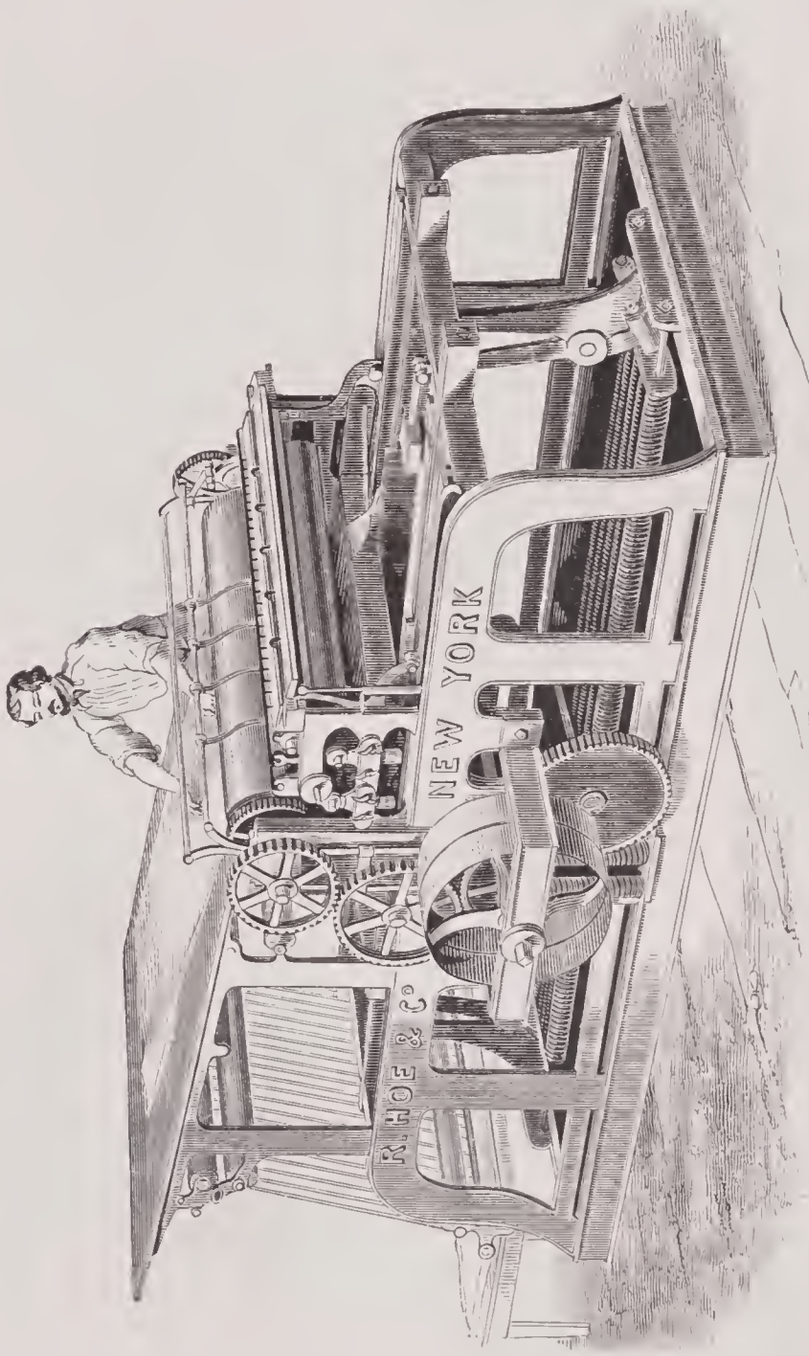
Sizes and Prices.

No. 1, Bed 28×41 inches.....	$5,125	No. 4, Bed 34×54 inches.....	$6,375
2, " 31×46 "	5,525	5, " 36×57 "	6,800
3, " 31×50 "	6,000	6, " 40×60 "	7,600

The above prices include Sheet-flyers, Counter-shaft, Hangers, Driving Pulley, two sets Roller Stocks, two Cone Pulleys, two Roller Moulds, Blankets, Boxing and Shipping, Carting and Putting-up.

A reduction will be made for any of the above-named articles not required.

Terms of Payment—Cash at manufactory in New-York.



Single Small Cylinder Printing Machine.

Single Small Cylinder Printing Machine.

(See opposite page.)

In its arrangement, this is similar to the Double Cylinder Machine. The small size of the cylinder allows of a very compact construction, thus shortening the distance which the bed travels, and so increasing the speed that from 2,000 to 3,000 impressions per hour may be obtained with perfect safety to the machinery. Only one attendant is required, as the printed sheets are thrown out by a fly-frame in a uniform pile. Register sufficiently accurate for newspaper and job work is secured by the patent feed guides, which are attached to each press.

This press is made in the same substantial manner as the *double* cylinder press with buffers similarly arranged to prevent noise.

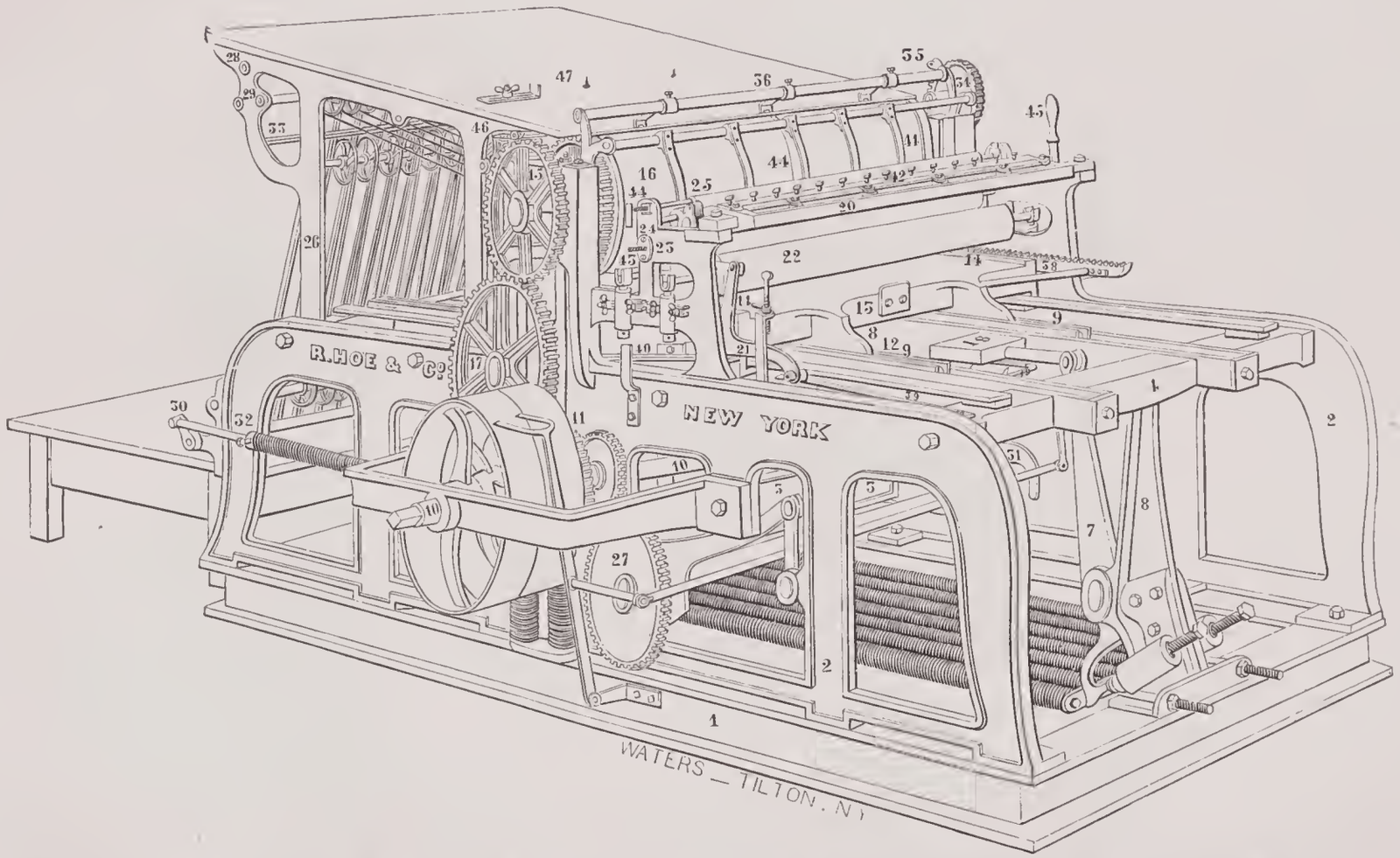
Sizes and Prices.

No. 1, Bed 25 ×33 inches	$2,400	No. 5, Bed 33×52 inches	$3,675
2, " 28½×41 "	3,000	6, " 36×54 "	3,850
3, " 31 ×46 "	3,200	7, " 36×57 "	4,175
4, " 31 ×50 "	3,475	8, " 40×60 "	4,425

The above prices include Sheet-flyers, Counter-shaft, Hangers, Driving Pulley, two sets Roller Stocks, two Cone Pulleys, two Roller Moulds, Blanket, Boxing and Shipping, Carting and Putting-up.

A reduction will be made for any of the above-named articles not required.

Terms of Payment—Cash at manufactory in New-York.



Outline Cut of the Patent Improved Single Small Cylinder Printing Machine.

To Illustrate Directions for Putting-up the Single Small Cylinder and Double Cylinder Machines.

Directions for Putting-up Patent Improved Double or Single Three-Revolution Small Cylinder Printing Machine.

(See Cut, opposite page.)

The several parts are taken and put together in the following order; the numbers are all to be found on the accompanying drawing:

1..The bed plate is laid down level on the floor, and if on a ground floor, a frame of 8 by 10 inch timber, as shown at figure B, framed and bolted with ¾ inch bolts, will require to be bedded on a few courses of brick-work, well laid in mortar as a foundation; the frame should be made 4 inches wider and longer than the bed plate.

2..The side frames, placed according to the marks indented on the metal, which must all be made to correspond.

3..The bridge beam between side frames.

4..The ribs are now carried in and rested on the snugs, inside of frames; the bolts at one end only put through the side frames, to allow the ribs to be carried up about one inch at the other end, so as to let in the small supporting columns between the ribs and bridge beam. All the bolts can now be put in and secured.

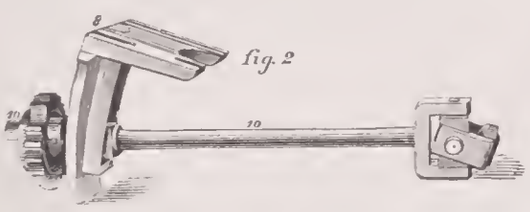
5..Spring stands also put in under ribs at each end of press.

6..Two sets of spiral springs, laid on bed-plate between stands.

7..Spring lever, set in spring stands.

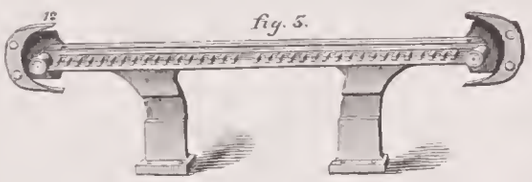
8..Slot hanger, which is bolted to the under side of ribs, not visible on drawing.

9..Roller frames laid in channels of ribs.



10..Bevel rack pinion, with universal joint shaft (fig. 2) which is put through the hanger, No. 8, till the brass collar lies in the slot, the driving shaft passed through from the outside of frame and the universal joint coupled together.

11..The outside gearing is now keyed on the driving shaft; first the impression pinion and secondly the outside driving wheel; also the driving pulley is keyed on, and the loose pulley slipped on, then the outside hanger is bolted on to support the end of driving shaft.



12..Bevel rack (fig. 3) to be bolted to the under side of No. 13.

13..The bed with the rack secured is laid in the roller frames which lie in the ribs, the teeth of the rack coming in contact with the rack pinion, so that the small rollers at the end of the rack will come in the large space of the pinion.

14...Bearers on bed, adjustable by thumb screws.

15..Cylinder bearings, adjustable by set screws.

16..Cylinder with wheel and finger motion complete.

17..The intermediate gear.

18..Buffer boxes attached to top of spring levers.

19..Two brackets from inside of ribs with slides for buffer boxes.

20..Ink fountain.

21..Lever for working fountain roller: upon a corresponding centre on the opposite side of the machine is a similar lever for moving the stretcher bar with drop roller.

22..Composition rollers in adjustable bearings.

23..Vibrating distributing roller, with pinion and intermediate pinion in gear with the rack on the side of the bed: one end is screwed in a nut secured in the frame, and, as it revolves from the motion of the bed, it screws backward and forward.

24..Roller, covered with cloth.

25..Small iron vibrating and riding roller.

26..Support for feed board.

27..Impression wheel and shaft driving from pinion on driving shaft No. 10, and working the impression cam on inside of frame, giving action to the toggle arms and shaft extending across the press, and supported by spiral springs on the bottom of the rods which pass through and support the cylinder, No. 16, and boxes, No. 15. The cam must be set so as to raise the cylinder as soon as the sheet is printed.

28..Rod with three tape guide pulleys on arms and counterbalanced weight on it.

29..Bracket for delivering roller and tape pulleys.

30..Bracket for fly.

31..Cam for raising fly frame.

32..Adjustable spring and rod for fly, which can be set so as to counteract the resistance of the atmosphere to the paper, in such a manner as to lay the sheet lightly on the table.

33..Rest for fly when raised.

34..Cam wheel and arm for working the fingers.

35..Bracket for feed guides and for hanging the steel spring bands to conduct the paper round the cylinder.

36..Lifting feed guides, worked by a small crank on the end of the rod, moved by an arm having a small roller on the end, which rolls upon a cam on the shaft of cylinder.

37..A guide to arm working No. 36, (not visible.)

38..A rack on side of bed for working inking rollers; there are also inclined planes attached to bed for working drop roller and for depressing arm No. 21.

39..Steel spring to raise arm No. 21, bolted on frame.

40..Springs to bear on the end of iron vibrating roller, No. 25; small steel centers are put in each end in contact with the springs which serve to return the action.

41..Stud for slot of connecting rod, working on fly crank by cam No. 31, on the opposite side of press.

42..Ductor, with set screws to regulate the supply of ink from fountain.

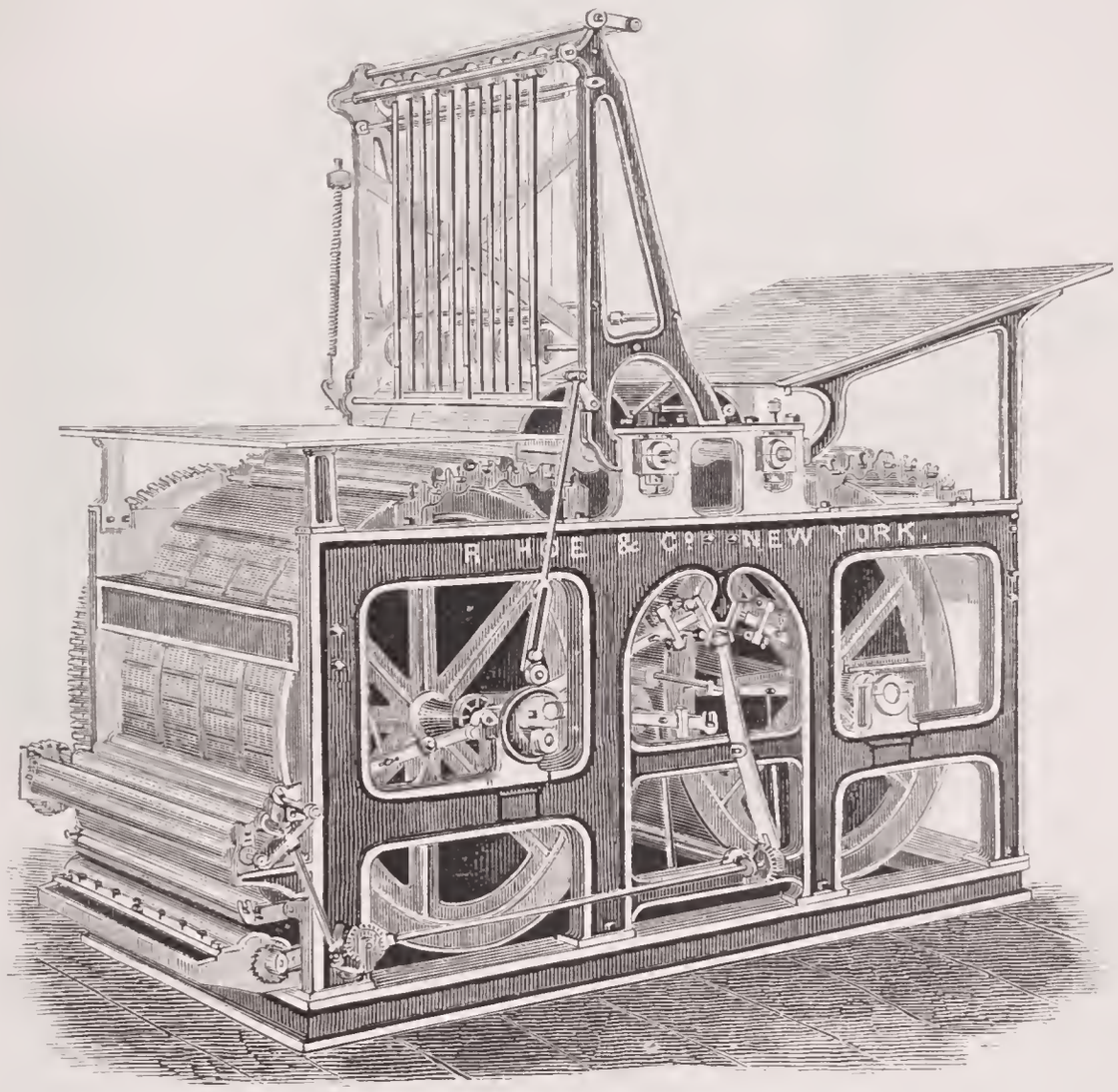
43..Blanket stretched around impression part of cylinder.

44..Three tapes which pass around cylinder, over the tape pulleys and around the delivery roller, and are guided by guide pulleys on No. 28.

45..The registering apparatus, which is attached by two small bolts under the top of the support for feed board, No. 26, close to the cylinder.

46..The lever handle for shifting. The belt is now adjusted, and the whole machine is complete.

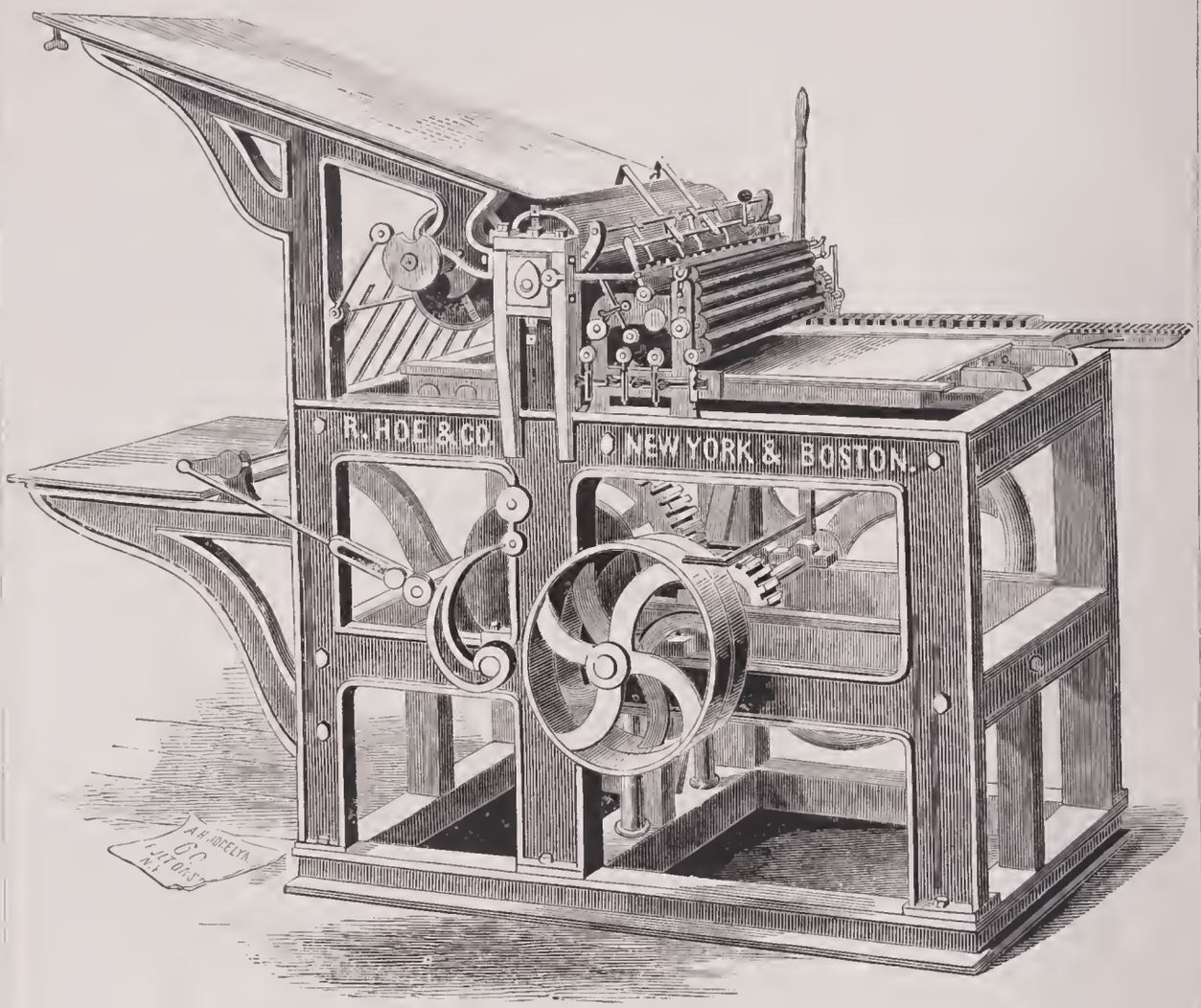
47..To find the place on the feed board for the points of the register to work through, you must have the small points placed in the chase, then place a sheet on the feed board, close the fingers on it, mark around the end and sides of the fingers with a pencil and run the sheet through the press; lay the sheet on the board, then turn the press so that the fingers close upon the sheet exactly on the pencil marks without drawing it forward, and the punctures made on the paper by the small points in the chase will be the places for making the holes in the feed board.



Type Revolving Book Perfecting Press.

As the name indicates, it is on the rotary principle, the forms being secured on the surface of two large horizontal cylinders. This system, as it does away with the reciprocating motion, admits of a greater speed in printing than any other. The distribution of the ink also is more perfect, there being room for six or more ink rollers to each form. It is equally well adapted to letter-press, stereotype and wood cut work, and will print from 1,500 to 2,000 perfected sheets per hour, the only limit to its speed being the capability of the feeder to supply the sheets.

As it dispenses with the registering apparatus, and is furnished with our patent self-acting sheet flyer, only one attendant is required for the largest sized press.



Four Roller Book Printing Machine.

This Machine is particularly adapted to fine book and cut work. The bed is impelled by a crank and lever placed below it, which obviates the necessity of bed-springs, and gives to it a slow and uniform motion during the impression, but a quick return movement. The larger sizes have four inking rollers, and also a pointing apparatus, and as the impression cylinder is stationary while the fingers close on the sheet, a perfect register is insured. The fingers never require shifting, whatever the size of the form, and the sheet flyer is so arranged that no tapes are used on the press; this makes it very convenient for job work.

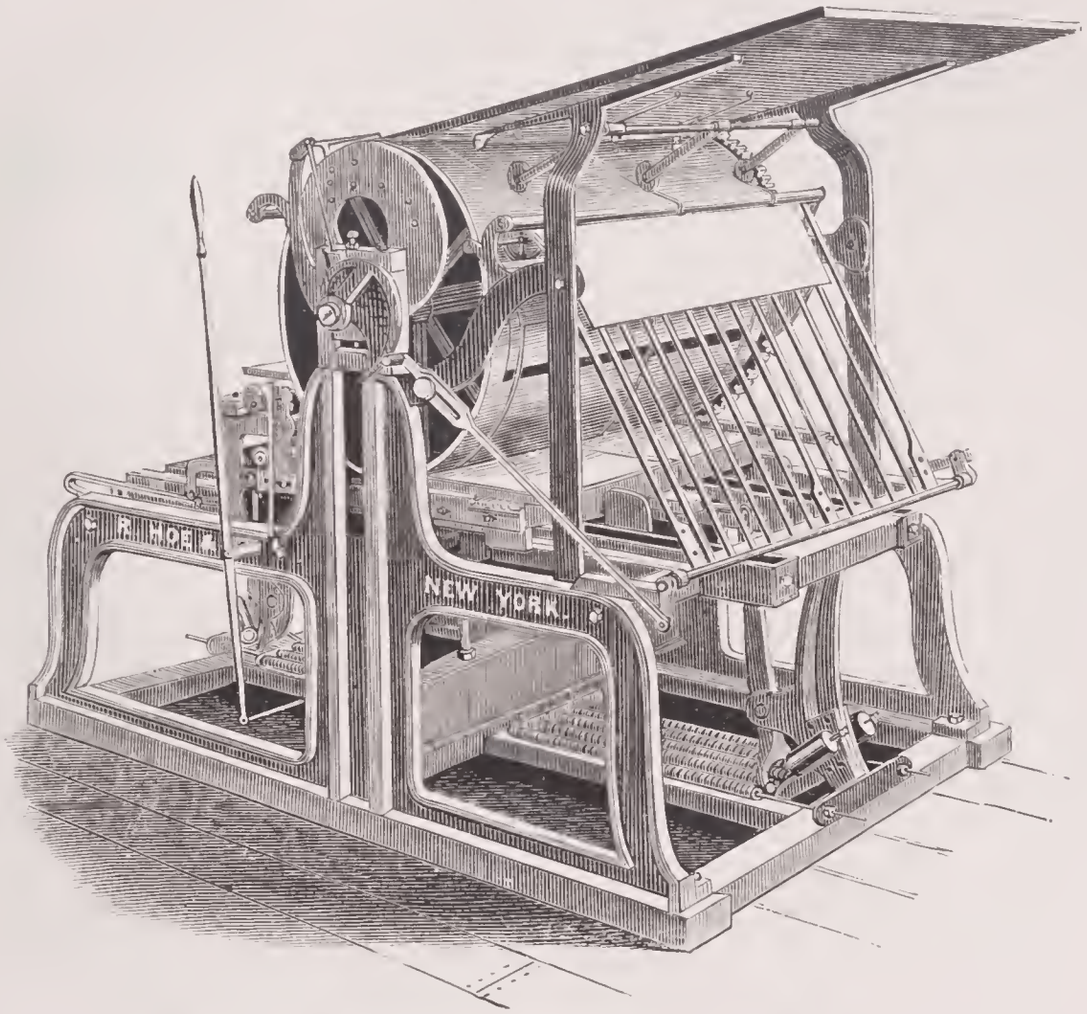
Sizes, Prices and Capacities.

No.	Size of Bed inside of Bearers.	Size of Matter printed.	No. of Inking Rollers passing over Form.	Size of Foundation Frame.	Height from floor to highest point of feed-board.	Weight boxed.	Price.
1	13 × 16 in.	9½ × 12 in.	2	24 × 43 in.	40 in.	1,800 lbs.	$1,050.00
2	16 × 22 "	12 × 18 "	3	32 × 54 "	52 "	2,500 "	1,750.00
3	23 × 28 "	19 × 24 "	4	42 × 71 "	80 "	5,000 "	3,000.00
4	25 × 33 "	21 × 29 "	4	47 × 71 "	82 "	6,000 "	3,350.00
5	25 × 38 "	21 × 34 "	4	52 × 71 "	82 "	7,000 "	3,650.00
6	28 × 41 "	24 × 37 "	4	57 × 89 "	68 "	8,000 "	4,025.00

The above prices include Counter-shaft, Hangers, Driving Pulley, two sets Roller Stocks, two Cone Pulleys, Roller Moulds, Boxing and Shipping, or Carting and Putting-up.

A reduction will be made for any of the above named articles not required.

Terms of Payment—Cash at manufactory in New-York.



Single Large Cylinder Printing Machine.

This Machine is particularly adapted to fine Job and Newspaper work. It has a registering apparatus and sheet-flyer; also adjustable iron bearers, so that stereotype may be worked with the same facility as type forms. One boy is required to lay on the sheets. It will print from 1,000 to 2,000 impressions per hour, according to the size of the press and the quality of the work.

Sizes, Prices and Capacities.

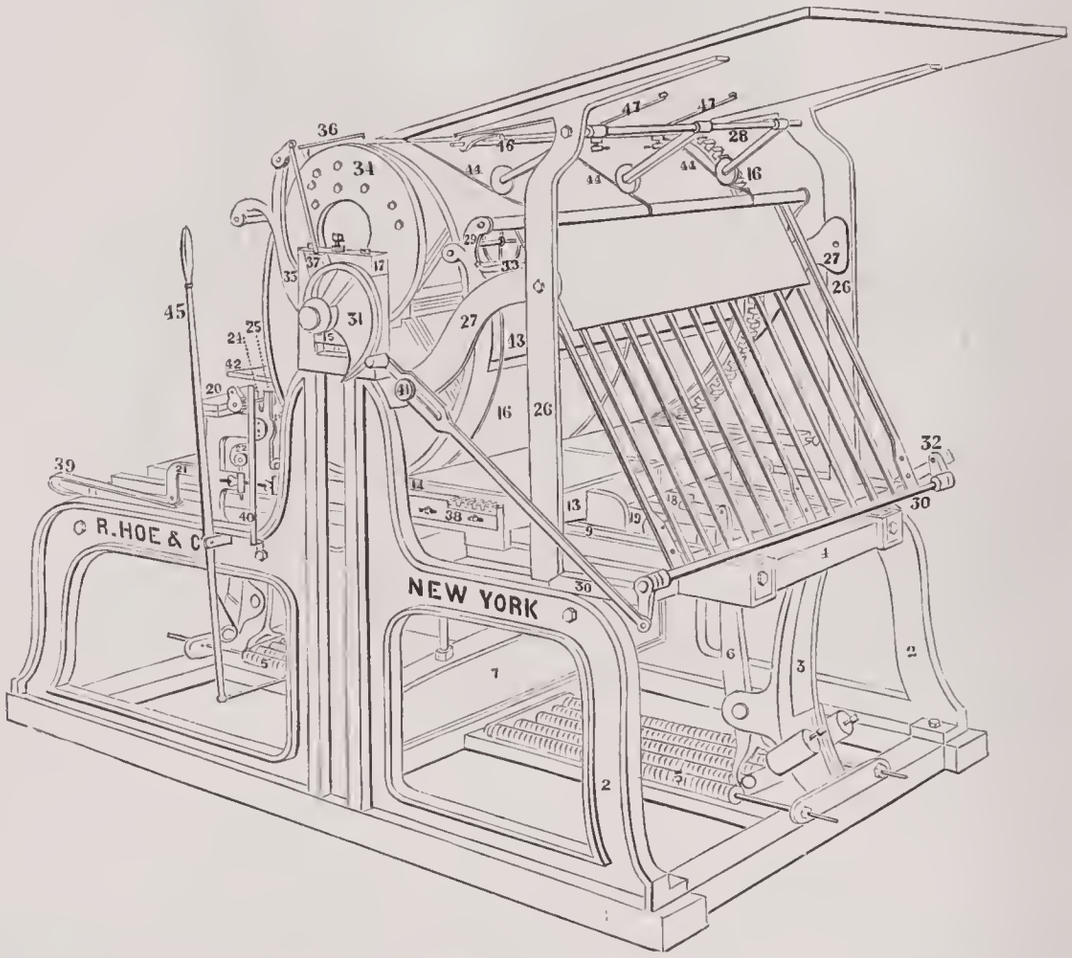
No.	Size. Inside bearers.	Size matter inked with two rollers.	Size matter inked with three rollers.	Size matter inked with four rollers.	Height from floor to highest point of feed board.	Weight boxed.	*Price of Press, (including Sundries below enumerated.)
0	16 ×23	12 in.	—	—	51 in.	2,000 lbs.	$1,125.00
1	19 ×23½	14 "	—	—	54 "	3,300 "	1,675.00
2	23 ×28½	18 "	—	—	63 "	5,750 "	2,175.00
3	25 ×33	21 "	—	—	65 "	6,775 "	2,550.00
4	28½×41	24 "	—	—	73 "	9,000 "	3,225.00
5	31 ×46	27 "	25 in.	23 in.	84 "	10,400 "	3,550.00
6	31 ×50	27 "	25 "	23 "	84 "	10,800 "	3,800.00
7	34 ×52	31 "	30 "	29 "	90 "	13,400 "	4,000.00
8	40 ×54	32 "	30½ "	29 "	90 "	14,775 "	4,325.00
9	40 ×57	32 "	30½ "	29 "	90 "	15,650 "	4,500.00

* The above "Price of Press" includes Counter-Shaft, Hangers, Driving Pulley, two Cone Pulleys, two Roller Moulds, Blankets, two sets Roller Stocks, and Boxing and Shipping, or Carting and Putting-up.

A reduction will be made for any of the above-named articles not wanted.

If ordered with Inking Apparatus to work four rollers, extra..... $240
Fly Wheel and Stand, small size..... 50
" " " large size..... 115

Terms of Payment—Cash at manufactory in New-York.



Directions for Putting-Up the Patent Improved Single Large Cylinder Printing Machine.

The several parts are taken and put together in the following order:

1..Bed Plate.
2..Side Frames.
3..The Spring Stands.
4..Ribs.

Note.—Take either side frame and bolt it in its place, with the bolts not quite screwed up; secure both spring stands and side frame; carry in the ribs and let them rest on the spring stands; bring up the other side frame, then secure and make fast all the bolts.

5..Spring Levers set in spring stands.

6..Two sets of Spiral Springs, laid on bed plate between stands.

7..Bridge Beam, with two columns to support ribs.

8..Hanger, which is bolted to the under side of ribs.

9..Roller frames, laid in channels of ribs.

10..Rack Pinion, (Fig. 2,) with universal joint shaft, which is put through the hanger till the brass collar lies in the slot; the driving shaft passed through from outside of frame and the universal joint coupled.

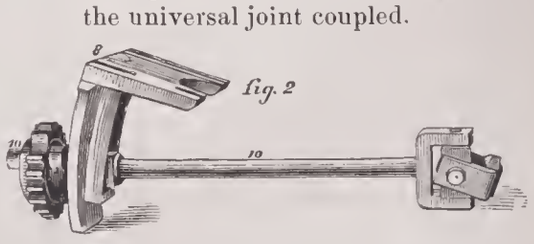


fig. 2

11..The outside pinion is now keyed on the driving shaft, also the driving pulley and the loose pulley slipped on, then the outside hanger is bolted to secure the end of driving shaft.

12..Bevel Rack, (Fig. 3,) to be bolted to the underside of No. 13.

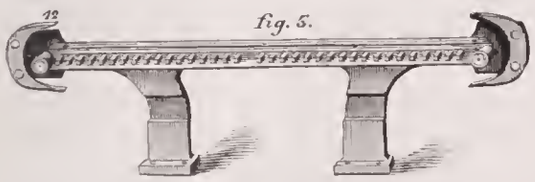


fig. 5.

13..The Bed, with rack secured, is laid in the roller frames, which lie in the ribs, the teeth of the rack coming in contact with the rack pinion, so that the small rollers at the end of the rack will come in the large space of the pinion.

14..Bearers on bed, adjustable by thumb screws.

15..Cylinder Bearings, adjustable by set screws.

16..Cylinder, with wheel and finger motion complete.

17..Caps to cylinder bearings.

18..Buffer Boxes attached to top of spring levers.

19..Two brackets from inside of ribs with slides for buffer boxes.

20..Ink Fountain.

21..Lever for working fountain roller; on a corresponding centre on the opposite side of the machine is a similar lever for moving the drop roller, or roller that takes ink from the fountain and deposits it on the distributing rollers.

22..Composition Rollers in adjustable bearings.

23..Distributing Roller with a pinion and intermediate pinion in gear with a rack on the side of the bed; one end is screwed in a nut secured in the frame, and, as it rolls, it screws forward and unscrews on the return of the bed.

24..Small iron vibrating roller.

25..Roller covered with cloth.

26..Support for feed board.

27..Brace for feed board.

28..Stay Rod, with three tape guide pulleys on arms on it.

29..Brackets for delivering roller and tape pulleys.

30..Brackets for fly.

31..Cam for raising fly frame.

32..Adjustable Spring and Rod for fly. This can be set so as to counteract the resistance of the atmosphere to the paper, and lay the sheet lightly on the table.

33..Rest for fly when raised.

34..Cam plate for working fingers.

35..Branch bracket for feed guides and for hanging the steel spring bands, which conduct the paper round the cylinder.

36..Lifting feed guides, worked by a small crank on the end of the rod, moved by an arm having a small roller on the end, which rolls upon a cam on the main shaft of cylinder.

37..Guide to arm working No. 36.

38..Guage Rack working into a segment on the cylinder. When this rack is put in connection with the segment on the cylinder, it must be in gear at the end furthest from the side of the bed, that is, where the teeth fill the spaces, and in such a manner as to divide the play in the outside wheels.

39..Spring to raise lever No. 21.

40..Springs to bear on the end of the iron vibrating roller; small steel centres are put in each end to come in contact with the spring which serves to return the action.

41..Stud for slot of connecting rod, working on fly crank by cam No. 31.

42..Cover to ink fountain.

43..Blanket stretched around impression part of cylinder.

44..Three Tapes which pass around cylinder over the tape pulleys and around the delivery roller, and are guided by the guide pulleys on the arms of stay rod No. 28.

45..The registering apparatus, which is attached by two small bolts to the top of the support for feed board, close to the cylinder.

46..The lever handle for shifting; the belt is now adjusted, and the whole machine is completed.

47..To find the place on the feed board for the points of the register to work through, you must have the small points placed in the chase, then place a sheet on the feed board, close down to the feed guides, and mark with a pencil around it on the feed board: then run the sheet through the press and lay it on the feed board again exactly by the marks of pencil, and the puncture made on the paper by the small points in the chase will be the place for making the holes in the feed board.

Directions for Making Ready for the Cylinder Press.

Make clean the bed of the press and the impression segment of the cylinder. Adjust the bearers a trifle above ordinary type height. See that the impression screws have an even bearing on the journals, and that the cylinder fairly meets the bearers. Select a suitable tympan or impression surface. This tympan may be the India-rubber cloth which is furnished with the press, a thick woolen lapping cloth or blanket, several sheets of thick, calendered printing paper, or one or more smooth and hard press boards. Each of these substances has merits not to be found in any other. Upon the proper selection of the tympan the press-work in a great measure depends, and the pressman should therefore be careful in making choice.

A press board tympan is most suitable for wood-cuts, for perfectly new type, and for the best kinds of press-work. It is not suitable for miscellaneous work, nor for heavy forms, nor for forms of mixed old and new type. If the overlaying is properly executed, a press-board tympan will enable the pressman to show a sharper edge and a more delicate impression of the type than is possible with any other. Although contrary to a common belief, it need not wear the type. In all cases, however, a press-board packing compels a tedious and careful making ready. If this is neglected it may prove very destructive to the type.

A woolen blanket is best adapted for old stereotype plates, for old type that has been rounded on the edges, for posters with large wood-type, and for all common work which requires a firm, solid, dull impression. For such work a woolen blanket will enable the pressman to make ready a form more quickly than any other, but it is injurious to new type, and does not give a fine and sharp impression.

Thick paper is much used for book-work, and also answers well for script circulars and leaded forms. It does not serve so good a purpose with mixed old and new type, nor for table-work with unequal heights of brass rule, nor for mixed large and small type. It will prove most serviceable for open forms of new type.

The India-rubber cloth combines many good qualities not found in other tympans, having the density of press-board, the hardness and evenness of paper, and the flexibility of the blanket, combined with an elasticity peculiarly its own. It is adapted to a greater variety of work than any other; posters, script circulars, news and book forms, stereotype plates, and old or new type, can all be well printed with an India-rubber blanket. When it is intended to make one tympan or packing answer for all kinds of work, the India-rubber blanket will be found decidedly superior to all others; but when very extra presswork is wanted, the tympan must be particularly adapted to the form of type.

There are forms for which none of these tympans are specially suitable. For such cases careful pressmen combine two or more together, as Welsh flannel over rubber, or thin rubber over press-board or under paper. These, however, are exceptional cases, and only occur when very good presswork is to be obtained from imperfect materials. Careful observation of the peculiarity of the impression given by each kind of tympan, will better teach a pressman how to combine them to the best advantage, than any arbitrary rule.

Whatever be the material selected, it must be stretched very tightly over the cylinder. All labor in overlaying is but thrown away if this be not carefully attended to. A rubber or woolen blanket can be secured at one end of the cylinder by small hooks projecting inward, and laced tightly with saddler's thread at the other end; or, by sewing on that end of the blanket a piece of canvas, it may be wound tightly around the reel and kept secure by the pawl and ratchet.

Paper and press-boards require a different process. Take a piece of nonpareil cherry reglet of the full length of the cylinder. Trim down the paper or press-board to the width of the bed between the bearers, but leave it a little longer than the impression segment of the cylinder. Then crease the press-board at a uniform distance of half an inch from the narrower end, and lay this creased part on the flat edge of the impression segment of the cylinder under the grippers. Put the reglet over this and bring down the clamps firmly on the reglet so as to bind all securely. When this is done, a thin web of muslin may be stretched over the whole in the same way in which a blanket is laid on, and rolled up tightly, which will prevent any slipping of the board or of the overlays that may be pasted on it.

A large poster or newspaper form, or any large form with old type, will require a soft roller with much suction. Book-work, wood-cuts, or fine job work will require a harder roller, with a very smooth, elastic and clinging surface. Colored inks are best printed with a still harder roller and with much less suction. All rollers should be perfectly clean and free from cracks and holes. The suitableness of these rollers cannot be explained by words; such a knowledge will be best acquired by observation and experience. It may, however, be necessary to state that one roller will not answer for all sorts of press-work; the quality of the work, the size and condition of the type and the speed of the press must guide the pressman in his choice.

Posters with large wood type require a semi-fluid ink, but one not surcharged with oil. Ordinary news-work requires a better quality, more tacky and finely ground. Good book-work should have a still stiffer bodied ink, soft, smooth, and readily distributed. Job ink, which is made expressly for press-work on dry paper, should be used only for such work. Book and job inks are not convertible; an ink for wet paper will not work well on dry paper, and *vice versa*. Very fine press-work, such as wood-cuts, or letter-press upon enamelled paper, calls for an ink impalpably fine, of brilliant color, of strong body, yet soft enough to be taken up smoothly on the inking rollers. The highest grades of Parsons & Fletcher's wood-cut ink will be found well adapted for such work.

Every job office should keep four grades of ink: News, Book, Job and Wood-cut. They can be mixed (if no ink manufacturer is near) with each other or reduced with varnish to suit different kinds of press-work. Good press-work is impossible without good inks.

Charge the ink fountain with the ink selected, and keep it well covered, to protect it from paper dust. Turn down the screws and cut off all the ink evenly. When the form is ready turn on the ink cautiously, and wait for ten or twelve impressions before again alteriug the screws. For small forms and short numbers of any job of press-work in colored ink or extra ink, a fountain is not necessary, as the ink may be applied with a brayer or palette knife.

The regulatiou of the margin is the next process. Although type can be printed from any quarter of the bed, it will be found most convenient to lay all forms close to the back part of the bed, and midway between the bearers. This will secure a good impression, give a fair average margin to every form and allow the full use of the bed for a large form, without re-setting the cylinder. The bed and cylinder travel together, and the grippers, which bring down the sheet to the form, should barely lap over the back part of the bed. So long as the toothed cylinder-wheel, and the short toothed rack on the side of the bed remain undisturbed, the grippers will always pass over the bed in exactly the same place. When the grippers are in this position, slightly lapping over the back of the bed, measure the distance between the back edge of the bed and the point of one of the nearest grippers, and with a piece of reglet cut a guage exactly corresponding to this measurement. Let no form be laid upon the press until the space between the type and the edge of the chase tallies with the guage. This will prevent the grippers from closing on the form and crushing it. If the chase will not admit of so wide a margin, or if an extra margin is wanted on the sheet, put a piece of furniture of the extra width behind the chase. The margin can thus be increased or diminished at pleasure.

A book-form may be locked up in a chase so large and with the type so far from the frame that the grippers will bring down the sheet in such a position that it will be printed with the margin all on one side. To remedy this the cylinder must be re-set. Proceed thus: remove the screw and washer at the end of the cylinder-shaft and draw the intermediate wheel out of gear; loosen screws in the guage rack; then turn the cylinder to the point required, connect the intermediate wheel, adjust the guage rack and screw up tight.

The press having been adjusted, next examine the form to be printed. Not only see that it is guaged correctly, but also that it is not locked up too tightly, that chase, quoins, letter and furniture are all level and lie flat upon the bed. If the form springs, the quoins must be slackened; if this loosens the type too much, the justification should be amended. Make clean the type by rubbing it over with a dry brush. The rollers are often made foul and the color of the ink changed by dust and particles of dirt clinging to the type.

Fasten the form so securely on the bed that it will not be moved by the action of the cylinder or the rollers. Take a proof on its own paper, using very little ink. Adjust the drop guides so as to bring the sheet exactly in the right position. Push out the iron tongues at the edge of the feed-board at equal distances from each other, so that they will sustain the paper evenly. Slide the drop guides along the rod, until they fall squarely over the tongues. Set the side guide so that it will give a true margin in length to the sheet to be printed. Adjust the grippers so that they will seize the sheet at proper intervals, making the margin exactly even by lengthening or shortening the drop guides. Then take a clean proof on its own paper, exactly in the right position before making ready, and show it to the reader. It often happens that an error in the margin, or an imperfection in the register is thus noticed, and its timely discovery and correction before overlaying will save much time and trouble. A readable proof may be taken before overlaying by running through a sheet or two of thick proof paper. Make register, if it is a book form, before overlaying.

When everything has been found correct, then proceed to regulate the impression. If the type is fair the proof should show a decently uniform impression. But if the form is large, or if it contains old and new, or large and small type, then the proof will show an uneven impression. To rectify this inequality, pressmen use three expedients—

1. By lowering the bearers and putting on more impression. This is a very poor way, for it wears down new type in order to show the face of the old, and invariably produces thick and coarse press-work.

2. By raising the low type to proper height by placing thicknesses of paper under them, which is called Underlaying.

3. By giving additional thickness to the tympan over such parts of the form as show a weak impression, which is called Overlaying.

It is seldom that any one of these methods will prove sufficient; all should be used together. When the larger part of the proof sheet shows a weak impression, approaching illegibility, then more impression should be added. When one side of the proof sheet shows a weak impression, while that on the other side is full and clear, then more impression should be given the pale side. The impression should be made decently uniform before any attempt at overlaying or underlaying. But the bearers should follow the impression screws, both being raised and lowered together, in order to secure the type from the unimpeded force of the impression cylinder. The bearers should be of even height, and the cylinder shaft should always revolve on a true level. If the impression screws are carelessly used, and the bearers are rashly raised and lowered, this even bearing will soon be lost; the difficulty of obtaining a good impression will be much increased, and the press will receive a serious injury. For the same reason the bearers should never be packed with cards, as is usual on a hand press, for it strains the cylinder and all its bearings with an irregular resistance. The bearers should be tampered with even less than the impression screws. When the latter are so set that the cylinder gives a fair, uniform impression, they have done all that can be expected, and nothing more should be attempted with them. Sometimes the proof may show that one cut, or a line of type, or a set of brass rules is higher than any other material in the form. The impression should be set regardless of this; it will be found quicker and neater to reduce the impression on one or two such high lines by cutting out the tympan sheet over them than it would be to underlay and bring up all other types to such an irregular height. Adjust the impression so that it will face the larger portion of the type, and make the less conform to the greater. Those parts which are high must be cut out of the tympan, those which are low should be raised by underlays; the inequalities should be smoothed by overlays.

When any part of the form is low, it will not answer to attempt facing it with overlays; it must be brought up to meet the inking rollers as well as the impression

cylinder. In such case, cut out an impression of the form where it is illegible, and then paste it to the bottom of the type. If some types are high and some are low, make proper distinction, and carefully avoid increasing the height of any type or rule which seems to have a full impression. Pursue the same course when a marked depression appears in the centre or a fading impression at the edges. Cut out that section which is light, and place it under the defective part. If the impression grows faint in any part, the underlays must be cut of irregular thickness to suit the fading away of the impression. Cut out an underlay from the edge where the impression begins to be light; then cut another of smaller size where it is quite illegible; paste one over the other, laying them carefully in their proper positions, and then paste them all on the bottom of the form where it is needed, taking care to lay the smallest underlay nearest the bed. This will restore the type to a proper level, and the next proof should show a uniform impression. The same plan will answer for a low corner. Use as little paste as possible, thin and free from lumps. Be careful that the underlays are put on smoothly without fold or wrinkle. Cut them all from a proof, which serves as a guide both in cutting and in affixing to the form.

Underlaying should not be practiced to any great extent upon a cylinder press. It is a valuable means of bringing up an old line of type, a hollow or a low corner. The underlays of any type form should not constitute more than one-fourth of the surface; if more than this is attempted, they rarely fail to work up the quadrats and furniture. The action of the quickly moving cylinder upon a form of type underlaid with yielding paper, will create a springing and rocking of all the materials in the chase.

Of all materials, old stereotype plates need underlays most, as they are usually quite irregular in height. Thin card or paste-board will be found preferable to paper for the underlaying of plates secured on wood bodies. When the plates are on patent blocks, always underlay between the plate and the block. Always cut the underlay for a plate less in size than the faint impression would seem to require; this will allow for the spring of the plate. If it is cut of full size, the next impression will disappoint the pressman by being much harder at the edges than he intended. Never attempt to build up a type form to a proper impression entirely or chiefly by underlaying.

Underlays should be put under all large and bold-faced types, when used with much smaller types, so as to raise them above the level of the others. This is needed to give it closer rolling, extra supply of ink, and that extra force of impression to transfer the ink to paper which all large type requires.

When the type has been so levelled by underlays that all parts receive proper bearing from the inking rollers, and when the cylinder has a correspondingly even impression, then overlaying may be commenced. For ordinary news-work, posters or job-work, over laying may be entirely unnecessary; the tapes and fly may be set, and the printing of the form may proceed without further delay. But fine press-work cannot be done without overlays. Underlays are chiefly valuable for securing an even impression, while overlays are indispensable for the giving of delicacy and finish.

To overlay a form properly the tympan should be covered with a sheet of a thin, smooth and hard paper, stretched tightly. Then take a pale impression on the tympan sheet, and also run through the press two or three proofs on thin and hard paper. Examine the proofs carefully on face and back. If any brass rules or letters appear too high, cut them out of the tympan sheet in one or two thicknesses, as their varying height may require. Go over the whole proof, examining every line carefully, and by cutting out reduce the impression on all projecting letters to a uniform standard. For this, as for all other work on overlays, use a sharp knife with a thin point, and cut on a smooth surface, so that there will be no dragged nor torn edge to the cut.

The next step should be to raise the impression of those parts of the form where the type appears dull or weak. Cut out carefully and paste the overlays smoothly upon the tympan. Overlays are worse than useless if they are not laid on firmly and neatly, as the slightest bagginess will cause slur or mackle. If, by accident, the tympan sheets or overlays should bag or wrinkle, tear them off and commence anew.

Cut out and overlay the more prominent parts first. Then try another impression, and from that cut out new overlays for minor defects. Thus proceed until a perfectly smooth and even impression is obtained.

With common work it will be sufficient to cut overlays in masses, as pages or parts of pages, but with fine work every line and letter needs examination, and letters and parts of single letters are often overlaid by careful pressmen. When the pressman is expert at making ready, it is not necessary to take a new impression with every successive set of overlays. Many pressmen take a dozen proofs of a form on different styles of paper, and proceed to cut out and overlay on one of the proofs, and finally paste this proof on the tympan. But this boldness and precision can be acquired only by long practice. It is better for the young pressman to feel his way step by step.

The Impression.—A difference of opinion exists among good printers as to the force needed for a fine impression. By some a heavy and solid indention of the paper is considered necessary, while others insist that an impression which does not indent the paper is preferable. The indention of the paper is no test of the force of the impression. A light impression against a woolen blanket will show more forcibly than a strong impression against a paper or pasteboard tympan.

Type is worn out not so much by the direct impression of the platen or cylinder on the flat face of the form as by a grinding or rounding impression on the edges of the type, caused by the forcing of the blanket between the lines and around the corners of every letter. Every font of worn-out type, whether from cylinder or platen press, has suffered less from a reduction in height than from a rounding of the edges. When the type is new and the tympan hard and smooth, the impression can be made so flat that the type will not round at the edges, and the impression will not show on the paper. But this cannot be done with old type or with a soft tympan; the impression must be regulated to suit the tympan. On fine work a rounding impression should be avoided, as it not only destroys type, but also thickens the hair lines and wears off the ceriphs.

It is not sufficient that the paper should barely meet the type; there must be sufficient force in the impression to transfer the ink from type to paper. If there is not sufficient impression it will be necessary to carry much ink on the rollers, and this produces two evils; the type is clogged with ink and the form becomes foul; too much ink is transferred to the paper, which smears and sets off for want of force sufficient to fasten it to the paper. Distinction must be made between a light and weak impression, and a firm and even impression. The latter should be secured, even if the paper is indented, though that is not always necessary. A form of old

type, a poster or other solid form, must have a firm impression, or else a very tedious and careful making ready.

The making ready of wood-cuts is a branch of press-work by itself, requiring minute instructions and long practice. It will be sufficient to say that the pressman must follow the lead of the engraver in cutting his overlays. Where the lines are thin, wide and sharp, they should be cut out of the tympan sheet; where they are close and solid, overlays should be pasted on, the number of overlays being regulated by the blackness or lightness of each part of the cut. These will suffice for plain cuts, but the management of perspective in a landscape, the subduing of a fore-ground, the receding of shades, the distinction between sky, clouds, and water, are all materially affected by the slightest overlay. Wood-cuts need good taste as well as acquired skill in the pressman.

When the overlays have been securely fastened, draw over the tympan a piece of French copying paper, and paste tightly. Some pressmen nicely graduate a decreasing or increasing boldness by inlaying between smooth sheets.

To Set New Tapes—Pass the tape around and close to the cylinder. Lap it over one of the tape pulleys, and then pass it around the small guide pulley on the shaft above. To increase its tightness, throw up the guide pulley from the shaft, and set the binding screw more tightly. All these pulleys are moveable on their shafts, and the distance between them may be altered at pleasure. Let the tapes rest upon the outer margin of the sheet, and see that the overlays on the tympan over which the tapes pass are of equal thickness; if not of equal thickness, the sheet will wrinkle.

To Set the Fly.—Run through a sheet of the paper to be printed, and let it run down the fly so far that it is barely held by the fly pulleys. Then set the cam which works the fly, so that its point just clears the small friction roller on the shaft, and it will throw down the sheet correctly. Tighten the spring according to the size of the sheet, and set the spring crank so that it will prevent the fly from striking too hard on the table.

Good press-work does not depend entirely upon the press, nor yet upon the workman, nor the materials. Nor will a superiority in any one point compensate for a deficiency in another: the newest type will suffer from a poor roller, and the most careful making ready will be thrown away if poor ink be used. It is necessary that all the materials should be good; that they should be well adapted to each other, and fitly used. A good workman can do much with insufficient materials, but there are cases where a failure to comply with one condition is equal to a neglect of all.

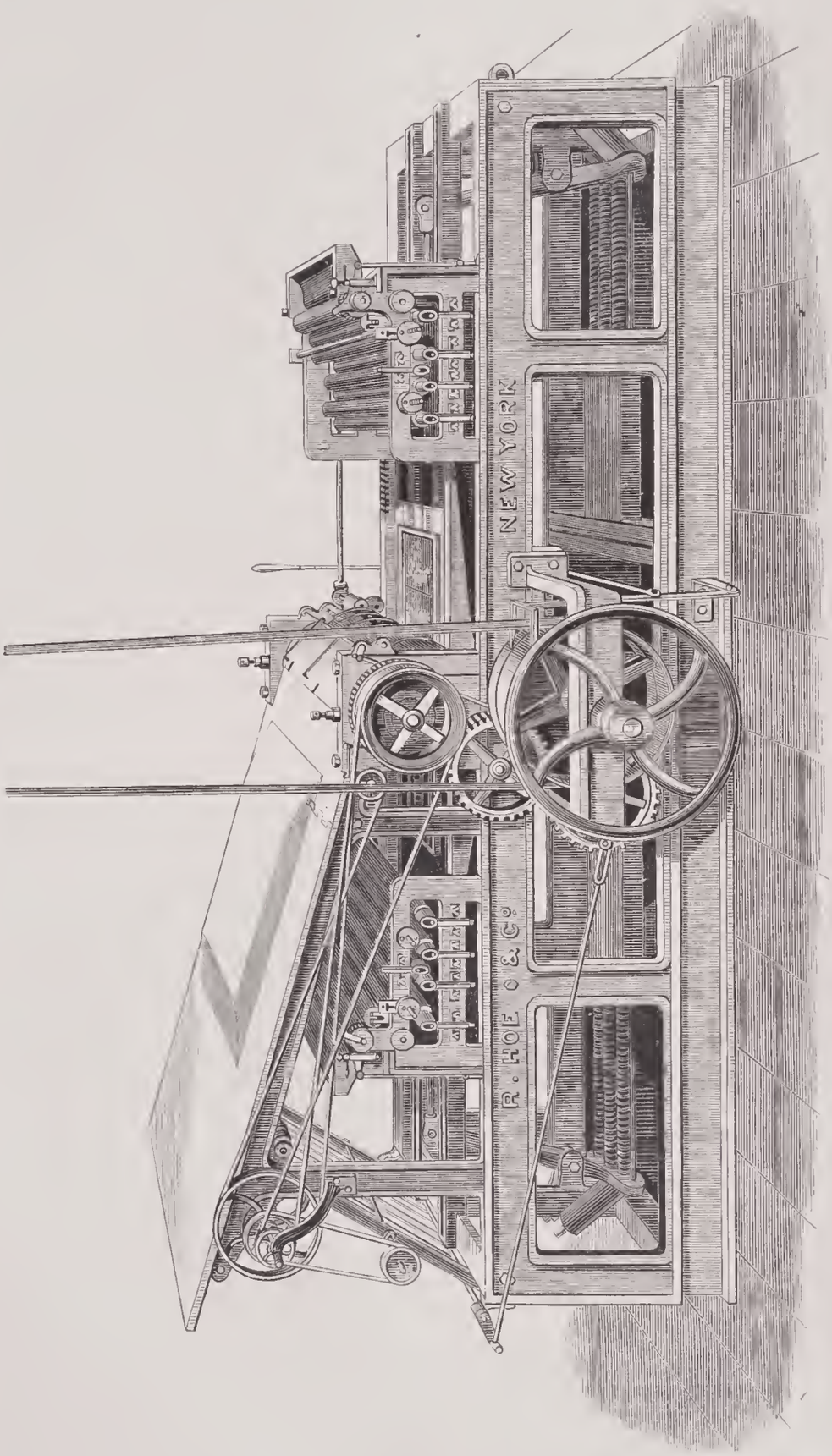
Directions for Making and Preserving Composition Rollers.

For *Cylinder Press Rollers*, No. 1 × glue is good enough for ordinary purposes, and will be found to make as durable rollers as that of a higher price.

Place the glue in a bucket or pan and cover it with water; let it stand half an hour, or until about half saturated, care being taken not to let soak too long; then pour off and let it remain until it is soft. Put it in the kettle and cook until thoroughly melted, adding, if too thick, a little water to make it of proper consistency. The molasses may then be added and well mixed with the glue by frequent stirring. When properly prepared, the composition does not require boiling more than an hour. Too long boiling candies the molasses, and the roller consequently will be found to lose its suction much sooner. In proportioning the material, a good deal depends upon the weather and temperature of the place in which the rollers are to be used. Eight pounds of glue to one gallon of sugar-house molasses or syrup, is a very good proportion for Summer, and four pounds of glue to one gallon of molasses, for Winter use.

For *Hand Press Rollers* use more molasses, as they are not subject to such hard usage as *cylinder press* rollers, and do not require to be as strong; for the more molasses that can be used the better is the roller. Before pouring a roller, the mould should be perfectly clean, and well oiled with a swab, but not to excess, as too much oil will make the face seamy and ragged.

Rollers should not be washed immediately after use, but should be put away with the ink on them, as it protects the surface from the action of the air. When cleaned and exposed to the atmosphere for any length of time they become dry and skinny. They should be washed about half an hour before using them. In cleaning a *new* roller, a little oil rubbed over it will loosen the ink, which should then be scraped with the back of a case knife. After treating it in this way for about one week, *lye* may be used. New rollers are often spoiled by washing them too soon with lye. Camphene may be substituted for oil, but owing to its combustible nature it is objectionable.



Two-Color Printing Machine.

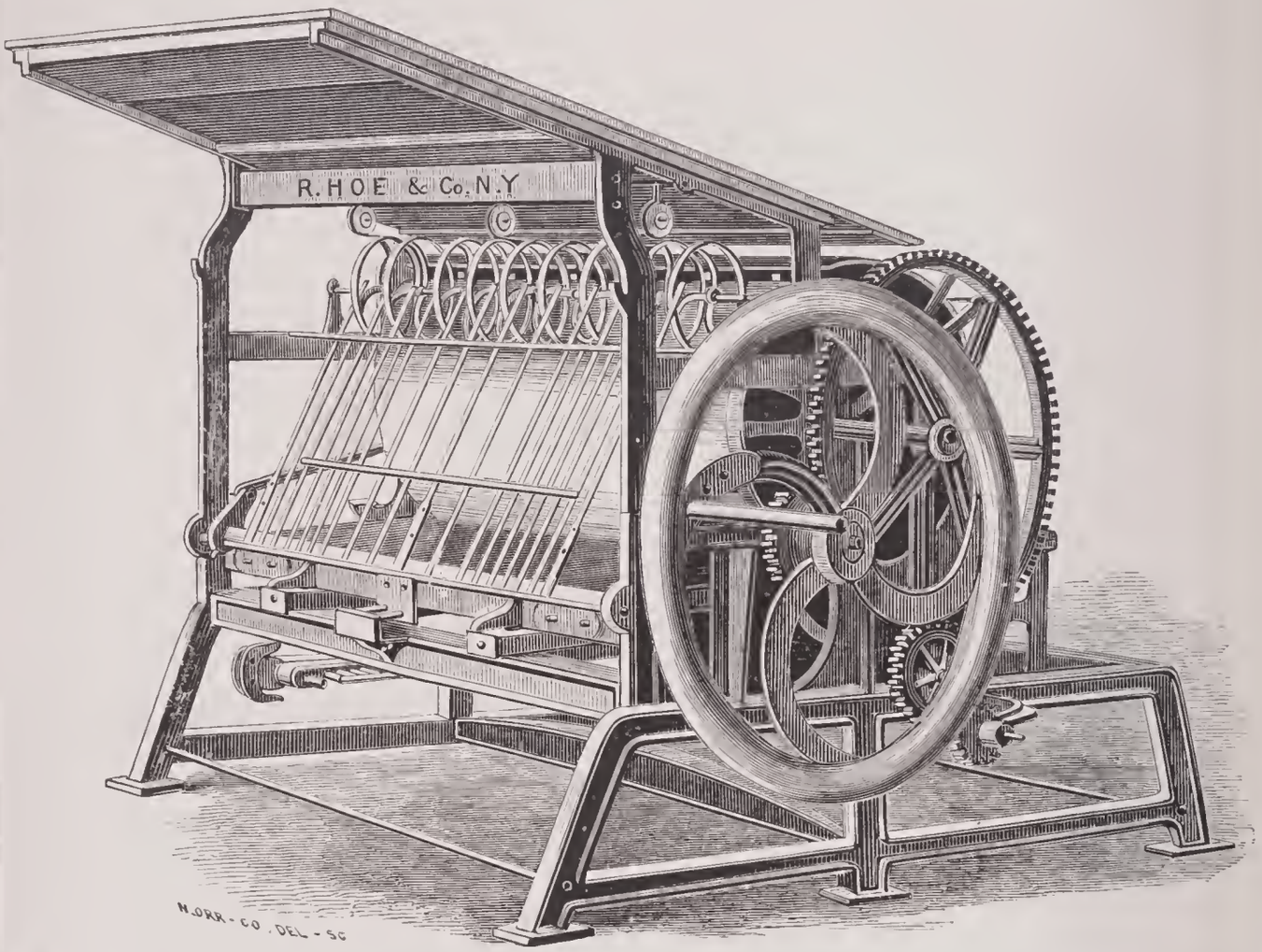
Two-Color Printing Machine.

This Machine is a Single Small Cylinder Press, having the bed sufficiently long to receive two forms, and provided with two ink fountains, each one of which inks its corresponding form. The sheet is fed and taken by fingers in the usual manner; but, after receiving an impression from the first form, instead of being thrown off, is held by the fingers and continues to revolve with the cylinder, thus receiving an impression from the second form as it passes under. The fingers then open, the sheet is carried out and is laid down by the flyer in the ordinary manner. In this way the two colors are printed at one operation and in perfect register, without any pointing being required.

Machines on the same plan are made to print two, three or four colors, as ordered.

Each Machine is furnished with Blanket, Counter Shaft, two Hangers and Pulley.

Terms of Payment—Cash at manufactory in New-York.



New Single Large Cylinder Hand Printing Machine.

The machine represented in the cut is similar to our Single Large Cylinder Press.

It is intended to supply Newspapers of moderate circulation with a plain serviceable printing machine, on which also the general job work of a country office can be done.

The Press is designed to run exclusively by hand, and will work off with ease, with one man at wheel, eight hundred impressions per hour. Steam power may be added and speed increased twenty-five per cent. without injury to the Press.

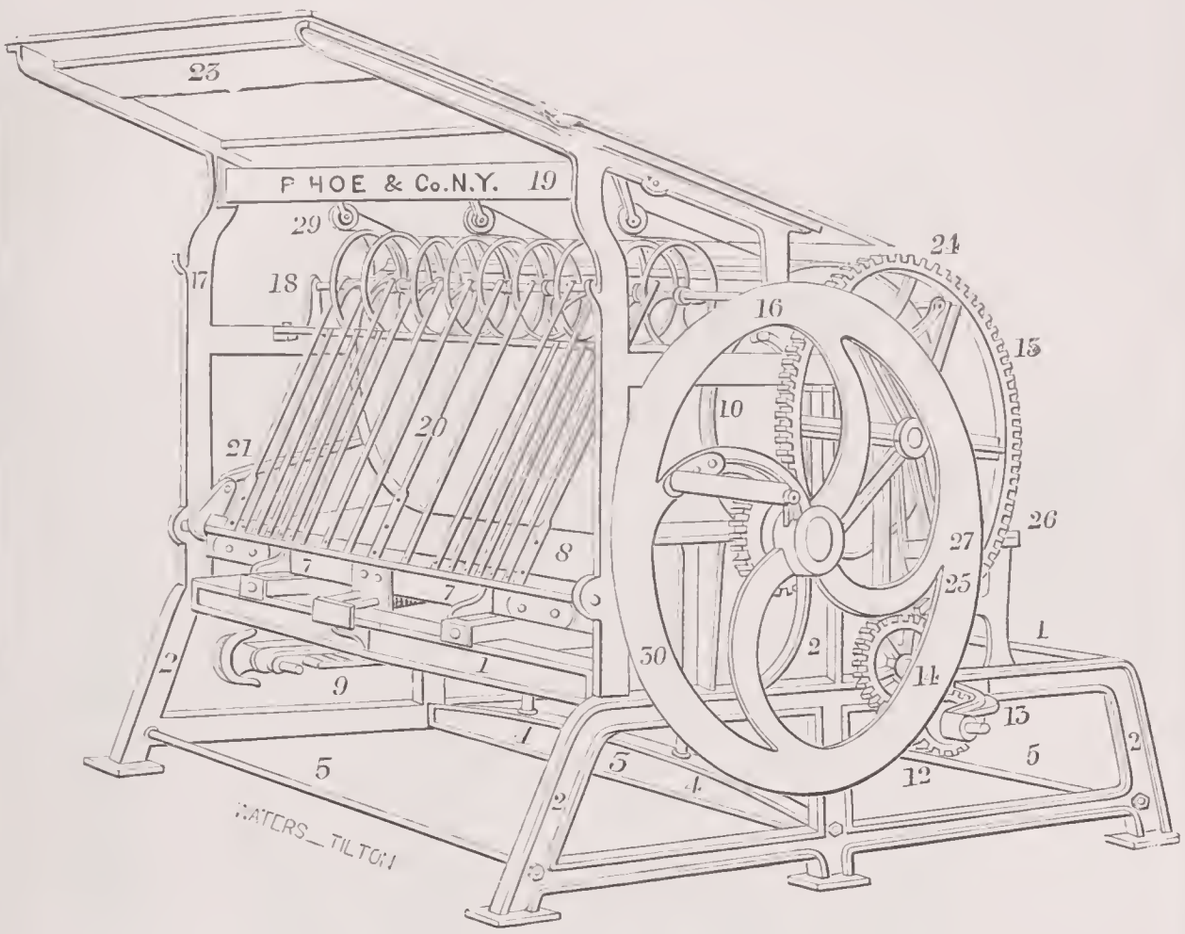
Size of Bed, inside bearers, 31 × 43 inches.

Price, $1,750.

The above includes Roller Moulds, Blankets, Boxing and Shipping, or Carting and Putting-up.

Driving Pulley, Fast and Loose Pulleys, Counter-shaft, Hangers, and two Cone Pulleys for steam power, extra, $75.00.

Terms of Payment—Cash at manufactory in Boston.



Directions for Putting-up New Single Large Cylinder Hand Printing Machine.

The several parts are taken and put together in the following order :

1..The ribs are rested, temporarily, about 20 inches from the floor.

2..Bolt either side frame; put in bridge beam, No. 3; insert supporters, No. 4, on top; insert stretchers, No. 5; bring up the other side frame.

6..Hanger for rack pinion shaft attached to under side of ribs.

7..The roller frames laid in channels of ribs.

8..The bed is next put on with rack, No. 9, attached.

10..The large cylinder with all its cams is placed in its bearings.

11..The universal joint shaft and pinion, under rack and outside pinion, No. 12, with outside hanger or brace, No. 13.

14..Is the intermediate wheel connecting cylinder wheel, No. 15, and pinion, No. 12.

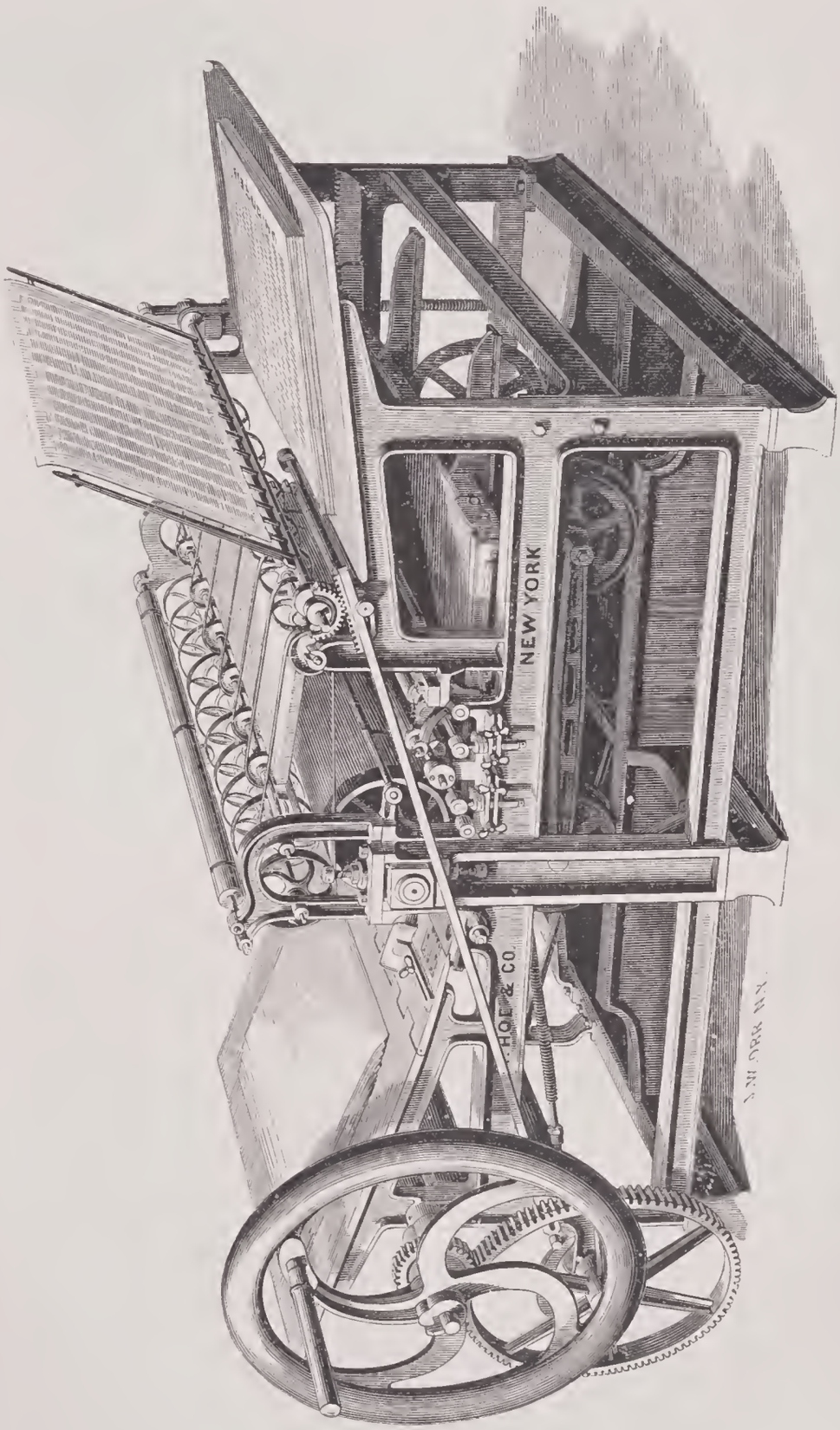
16..The bracket for operating fingers of large cylinder.

17..The feed board supports; put in shaft, No. 18, with the tape pulleys, also stretcher, No. 19.

20..The fly frame, with attachments, No. 21, the connecting rod to cam on.

30..The cylinder tapes are next put around and over fly pulleys, around guide pulleys, No. 29, and back to cylinder. The fly wheel and pinion are lastly put in gear with the cylinder wheel, and the press is ready for the form.

To find the place on the feed board for the points of the register to work through, first have the small points placed in the chase, then lay a sheet on the feed board and close the fingers of the press on it; mark around the ends and sides of the fingers with a pencil, and run the sheet through the press; then lay the sheet on the feed board and turn the press so that the fingers may just close on the sheet exactly on the pencil marks without drawing it ahead, and the punctures made in the paper by the small points in the chase will be over the places for making the holes in the feed board.



Railway Newspaper Printing Machine.

Railway Newspaper Printing Machine.

This Press is especially designed to supply Newspapers of moderate circulation with a cheap and plain, but serviceable Printing Machine, capable of doing also the ordinary Job Work of a country office. It is designed to run exclusively by hand, at a speed of 700 or 800 impressions per hour, and at this rate will work without noise or jar.

The bed is carried by a truck having large friction rollers running on a Railway (whence the name of the press), and is driven backward and forward by a crank motion which stops and starts it so gently that the bed-springs, usually employed, are not needed. The paper is fed through adjustable guides to the under side of the impression cylinder, and the feed-board lifts the sheet up over the guides and against the cylinder as the fingers of the latter clasp it. After an impression is given, the impression cylinder remains stationary while the bed returns; a fresh sheet is in the meantime laid on the feed-board, and the fingers close on it before the cylinder starts again. As the cylinder wheel gears directly into a rack on the side of the bed, excellent register is obtained without a pointing apparatus, which, however, is furnished without charge. The bed is provided with iron bearers to equalize the impression on the form. The impression cylinder is never shifted to suit forms of different sizes, but the forward edge of the type is always placed to the same line on the bed, and the fingers and fly tapes are as easily adjusted as on our ordinary job presses.

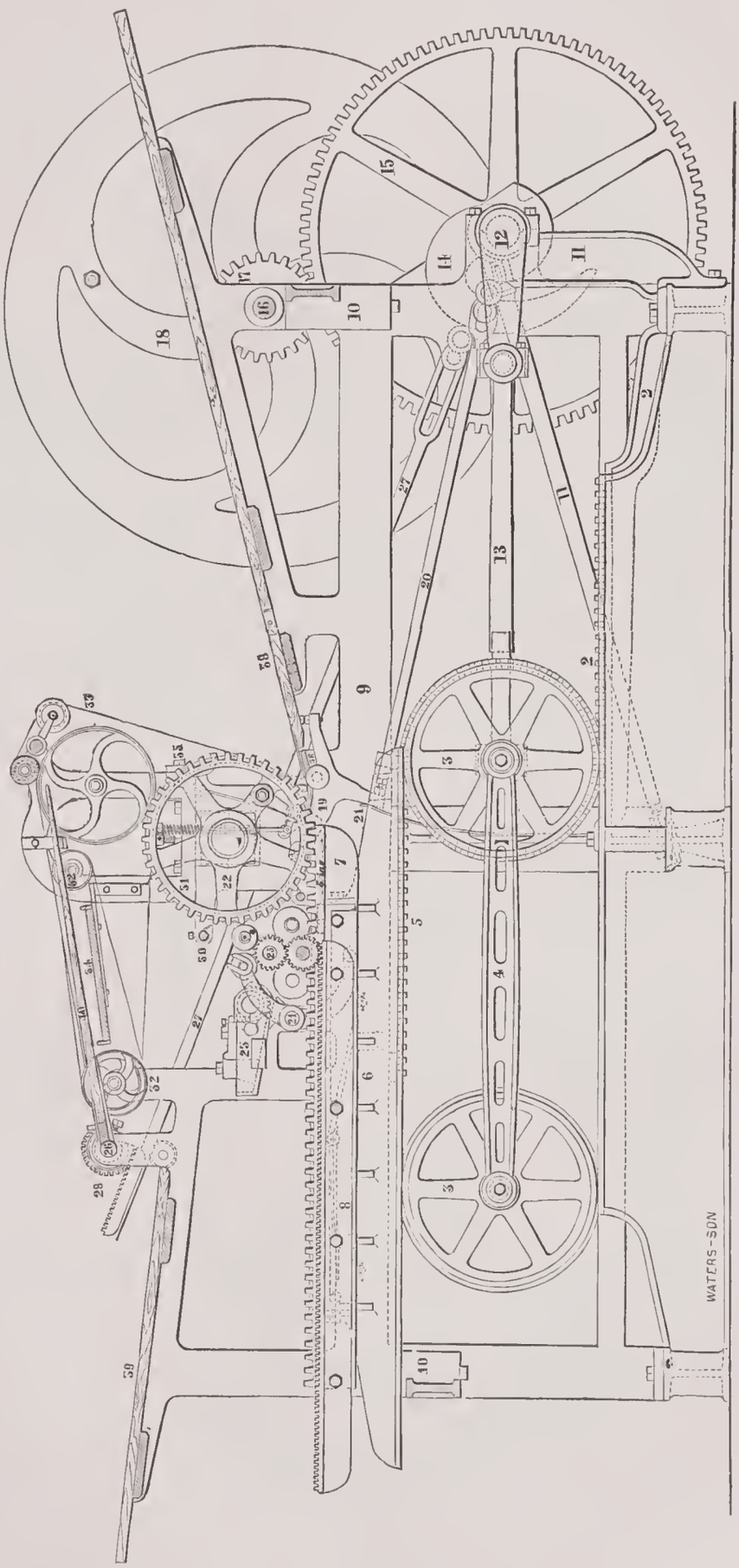
The ink fountain has the adjustable knife so necessary to job work. The bed is 31×46 inches; a form 27½×42 inches is inked by one roller, and a form 23×42 inches by two rollers. The press has our self-acting sheet-flyer, and can be run easily and safely by one man or strong boy at the speed mentioned above. It occupies a space 5½×10 feet, and can be worked in a room 7 feet high. Weight, boxed, 5,600 lbs.

Size of Bed, 31×46 inches.

Price, $1,350.

The above price includes Roller Moulds, Blanket, Boxing and Shipping, or Carting and Putting-up.

Terms of Payment—Cash at manufactory in Boston.



Outline Cut of the Railway Newspaper Printing Machine.

Directions for Putting-up Railway Newspaper Machine.

The bed-plate, No. 1, is laid in position and the surface of the rails carefully levelled; and the lower rack, No. 2, bolted to the bed-plate at the feed-board end of the press.

The crank shaft bearing, No. 11, is bolted to the bed-plate and held firmly by its wrought iron stay-rod.

The truck wheels, No. 3, are placed on the rails, with the centre wheel geared into the lower rack as marked, and the outside connections, No. 4, are put on their axles.

Attach the side racks to the type bed and bolt the upper racks, No. 5, to its under-side; then place the bed on the truck wheels with the racks gearing into the centre wheel as marked.

The side frames, No. 9, are now bolted to the bed-plates, and the two cross braces, No. 10, put in at their respective ends of the press.

The crank shaft, No. 12, is put into its bearings. The small cam on the shaft, just inside of the farther side frame is for operating the sliding rod, No. 20. The stop lever, No. 19, and the sliding rod, No. 20, are in their places, attached to the side frame.

The forked connecting rod, No. 13, is connected to the geared truck axle and to the crank-pin.

The sheet flyer cam, No. 14, is put on the outer end of the crank-shaft and the large geared wheel, No. 15, keyed on outside of it.

The driving shaft, No. 16, is slipped into its bearings in the side frames, with its binding collar inside of the further side-frame, and the driving pinion, No. 17, that gears into the large wheel, No. 15, is keyed on outside of the frame, and the driving fly-wheel, No. 18, is put on outside of all.

The three long tapes are laid around the impression cylinder, No. 22, the cylinder laid in its bearings, with the loose wheel on its shaft geared into the side rack on the bed, as marked. Put in the upper half of the cylinder boxes over the bearings.

The intermediate pinion that connects the side rack and vibrating distributor may now be put in; then run the bed to its extreme distance from the crank shaft and put in the vibrating distributor, adjusting it so that the pinion on it shall clear the side frame by one-eighth of an inch.

The lifting roller arms, No. 24, are put on their shaft, the shaft in its bearings, and the ink fountain, No. 23, is bolted in its place. Observe that the teeth on the double arm gear correctly into the toothed segment that carries the pawl for turning the fountain roller, and that the vibrating inclined plane passes over and under the friction roller on the lower end of the arm.

The sheet flyer shaft, No. 26, is put in with its longest end at the farther side of the press, and then the long sliding rod, No. 27, running from the sheet flyer cam, by which it is operated, to the sheet flyer shaft.

Slip the toothed segment, No. 28, on the shaft and into gear with the short rack on the end of the sliding rod, and tighten it in such a position that the cam will hold the fly down on its rest.

The short crank, spring rod, and spiral springs are put on the nearer end of the fly-shaft and so tightened as to throw it over slowly and lightly.

The two rods, No. 30, hold the sheet guide spring, to prevent the sheet touching the inking rollers.

Screw the wrought iron brackets, No. 34, to the arches, No. 31, put up the arch with the finger opening cam on it, on the further side; and enter, to their respective marks, the shaft of large tape pulleys, and the shaft of small tape pulleys, with tapes on. The wooden tape roller, and the stay rod with three tightening pulleys on it, are put through the three long tapes and into their places in the arch, then put up the arch on the opposite side to support the other end of the shafts.

Pass the remaining tape pulley shaft, No. 32, through the double of the tapes that convey the sheet over the fly-frame, and drop it into its bearings.

The board, No. 34, is laid on the brackets to protect the inking apparatus.

The bar, No. 35, runs across the press for holding the front feed-guides, and the bent spring, No. 36, is screwed to the nearer side-frame to assist in lifting the feed-board.

Put on the feed-board, No. 38.

Lastly, put on the fly-board, No. 39, and fly-frame, No. 40.

Directions for Working.

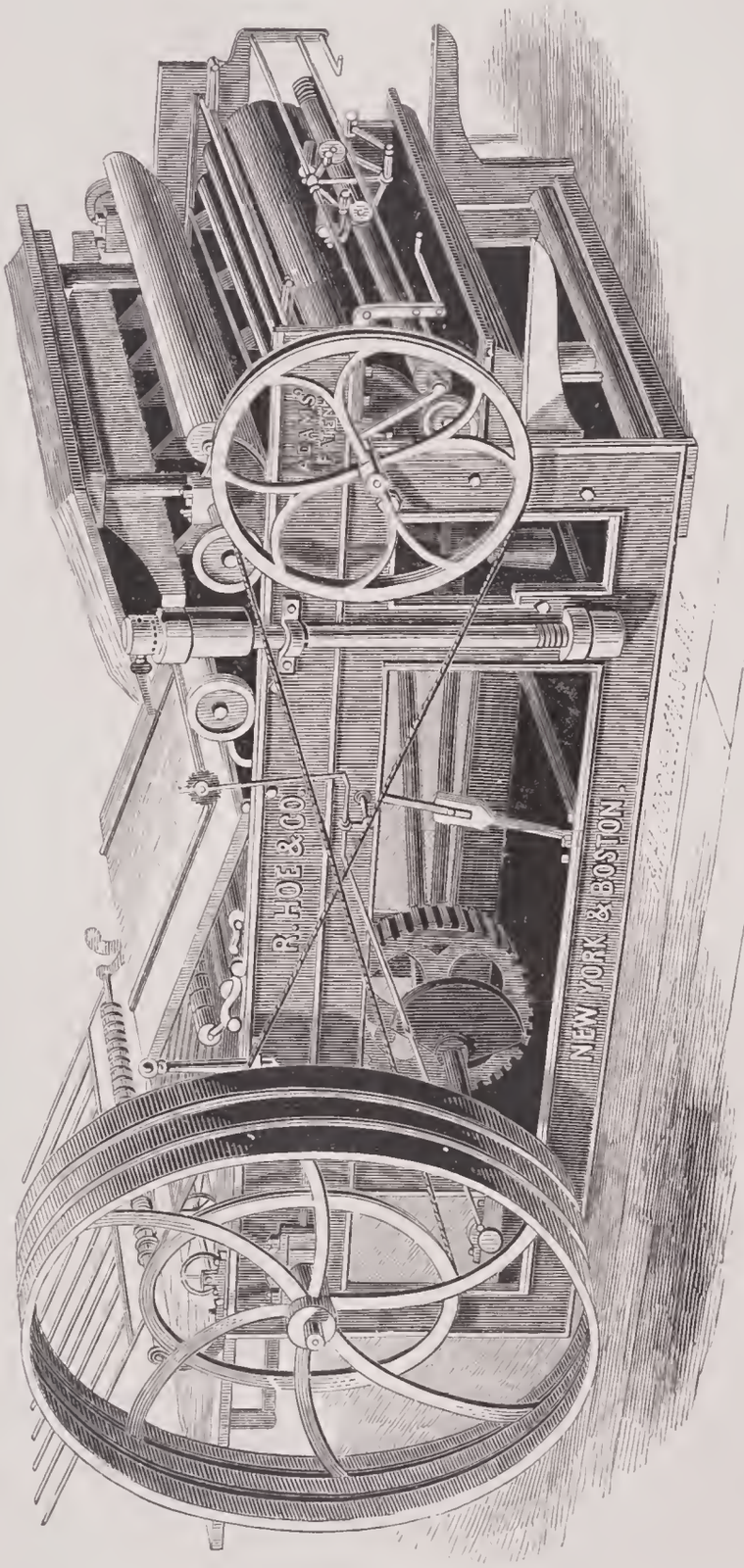
Put the form on the press at the fly-board end, bearing in mind that the printing cylinder in relation to the bed cannot be altered. Should more margin be required than will enter into the fingers, move the form back from the fingers; and if a form of book-work with the matter locked up to the cross bars of the chase be put on, back off the chase-plates until the matter comes sufficiently near to the fingers. One-half of the form can be planed down at each end of the press, as on the ordinary cylinder press.

The blankets are the same as those ordinarily used for the same kind of work; viz.: a vulcanized rubber or cloth, and a muslin or paper tympan over it. One blanket may be kept for the newspaper and another for job forms.

The inking arrangement is much the same as on our other presses. The inking rollers are put into their sockets from below, when the bed is at the opposite end of the press, as in ordinary cylinder presses. The front feed-guides may be uncovered by simply drawing back the feed-board a little, and raising the forward end.

Large bills and posters with heavy type, on which tapes cannot be used, are flown by hand by simply removing the sheet-flyer and tape pulley shaft near it, and slipping all the tapes to the side of the press. The cam, which opens the fingers ordinarily, is also removed, so that the fingers before opening draw the sheet entirely off the form, and carry it around until the cylinder stops. The back end of the sheet is thus brought up so high on the cylinder as to be easily taken by a boy, (or a boy on each side if the sheet be large) drawn back off the cylinder while it remains stationary, and laid on the fly-board printed side up.

For further directions, see "Directions for Making Ready," on page 32.



Bed and Platen Power Printing Machine.

Bed and Platen Printing Machine.

(ADAMS' PATENT.)

These well known Presses do not need here an elaborate description. For the finest letter-press and wood-cut printing, particularly where accurate register is required, they are unequalled by any other power press. They are made with two, four or six inking rollers, according to the class of work to be done, and, when desired, the impression may be suspended without stopping the running gear, and advantage taken of this to pass the rollers again over the form. A self-changing tympan sheet is attached to the platen.

Within the past three or four years various improvements have been made in the distribution, especially of the four and six roller presses, by which its efficiency has been greatly increased, and in addition much trouble has been spared the pressman by the substitution of composition rollers in place of cloth rollers, and by the introduction into the six roller presses of vibrating wooden cylinders instead of the inconvenient layers of small rollers.

We have recently constructed a fountain for expensive colored work, in which the ink lies upon the knife in full view, so that very little is required to start the press. It is quickly cleaned and without waste of ink. For prices, see table on page 47.

To the matter of *Pointing*, also, we have given some attention, and we have prepared and patented several attachments designed to meet acknowledged wants. The first are *adjustable points*, capable of being set in much greater variety of positions than the points ordinarily required. The second is an apparatus for *setting the points* without raising the tympan or stopping the press, and for holding them firmly in place; it is operated by thumb screws in the edge of the tympan. The third is a *self-pointer;* it consists of an arm swinging on a pivot at the farther edge of the tympan, and carrying several brushes or springs, with which, at the right moment, the sheet is pressed down upon the points, thus sparing the feeder the fatigue and frequent ill results of leaning over a wide feed-board. The fourth is similar in construction to the one just described, and is intended to *punch holes* for the folding machine points; any number of holes may be made in any part of the sheet. For prices, see page 47.

The strength and solidity of these presses have been greatly augmented to adapt them to the heavy cut work which has lately become so common. A double medium, for example, weighs nearly a ton more than formerly.

Our list of sizes on next page shows a number of additions to the catalogue of four and six roller presses, and, it seems to us, cannot fail to meet every possible want.

Dimensions and Prices of Bed and Platen Printing Machine.

(Adams' Patent. See preceding page.)

No.	Size of Platen.	Rollers.	Size of Chase, outside.	Price.
1	14 × 18 in.	2 Rollers,	$16\frac{5}{8}$ × $20\frac{3}{4}$ in.	$1,000.00
2	19 × 23 "	2 "	$21\frac{3}{8}$ × $25\frac{1}{4}$ "	2,350.00
3	" × " "	4 "	" × " "	2,650.00
4	19 × 25 "	2 "	$21\frac{1}{2}$ × $27\frac{1}{2}$ "	2,375.00
5	" × " "	4 "	" × " "	2,675.00
6	20 × 25 "	2 "	$22\frac{1}{2}$ × $30\frac{3}{8}$ "	2,550.00
7	" × " "	4 "	" × " "	2,900.00
8	$22\frac{1}{2}$ × $29\frac{1}{2}$ "	2 "	$25\frac{1}{2}$ × $33\frac{1}{2}$ "	2,825.00
9	" × " "	4 "	" × " "	3,275.00
10	" × " "	6 "	" × " "	3,550.00
11	24 × $29\frac{1}{2}$ "	2 "	27 × $33\frac{1}{2}$ "	2,850.00
12	" × " "	4 "	" × " "	3,300.00
13	" × " "	6 "	" × " "	3,575.00
14	23 × 34 "	2 "	26 × 38 "	3,225.00
15	" × " "	4 "	" × " "	3,675.00
16	$24\frac{1}{2}$ × 37 "	2 "	$27\frac{3}{8}$ × 41 "	3,275.00
17	" × " "	4 "	" × " "	3,750.00
18	$24\frac{1}{2}$ × 39 "	2 "	$27\frac{3}{8}$ × 43 "	3,325.00
19	" × " "	4 "	" × " "	3,800.00
20	" × " "	6 "	" × " "	4,100.00
21	26 × 40 "	2 "	$28\frac{5}{8}$ × $43\frac{5}{8}$ "	3,450.00
22	" × " "	4 "	" × " "	3,950.00
23	" × " "	6 "	" × " "	4,250.00
24	27 × 40 "	2 "	$29\frac{5}{8}$ × $43\frac{5}{8}$ "	3,600.00
25	" × " "	4 "	" × " "	4,150.00
26	30 × 40 "	2 "	$32\frac{5}{8}$ × $43\frac{5}{8}$ "	4,050.00
27	" × " "	4 "	" × " "	4,650.00
28	" × " "	6 "	" × " "	4,975.00
29	27 × 41 "	2 "	$29\frac{1}{2}$ × $44\frac{3}{4}$ "	3,600.00
30	" × " "	4 "	" × " "	4,150.00
31	" × " "	6 "	" × " "	4,475.00
32	$26\frac{1}{4}$ × 43 "	2 "	$28\frac{7}{8}$ × $46\frac{3}{4}$ "	3,775.00
33	" × " "	4 "	" × " "	4,350.00
34	" × " "	6 "	" × " "	4,675.00
35	27 × 43 "	2 "	$29\frac{5}{8}$ × $46\frac{3}{4}$ "	3,775.00
36	" × " "	4 "	" × " "	4,350.00
37	" × " "	6 "	" × " "	4,675.00
38	$28\frac{3}{4}$ × 43 "	2 "	$31\frac{3}{4}$ × $46\frac{3}{4}$ "	3,850.00
39	" × " "	4 "	" × " "	4,450.00
40	" × " "	6 "	" × " "	4,775.00
41	$30\frac{1}{2}$ × 43 "	2 "	$33\frac{1}{4}$ × 47 "	4,250.00
42	" × " "	4 "	" × " "	4,850.00
43	" × " "	6 "	" × " "	5,200.00
44	$33\frac{1}{2}$ × $43\frac{1}{2}$ "	2 "	$36\frac{1}{4}$ × $47\frac{1}{2}$ "	4,750.00
45	" × " "	4 "	" × " "	5,400.00
46	" × " "	6 "	" × " "	5,775.00
47	$30\frac{1}{2}$ × 45 "	2 "	$33\frac{1}{4}$ × 49 "	4,450.00
48	" × " "	4 "	" × " "	5,100.00
49	" × " "	6 "	" × " "	5,450.00
50	32 × 46 "	2 "	$34\frac{3}{4}$ × 52 "	4,900.00
51	" × " "	4 "	" × " "	5,600.00
52	34 × $48\frac{1}{2}$ "	2 "	$35\frac{7}{8}$ × $53\frac{1}{2}$ "	5,350.00
53	" × " "	4 "	" × " "	6,150.00
54	" × " "	6 "	" × " "	6,525.00

* The above Price includes Cone Fly Wheel, Counter Cone, Tight and Loose Pulleys, Counter-Shaft, Hangers, Driving Pulley for Main Shaft, two Friskets, six Roller Cores, if Two-Roller; twelve Roller Cores, if Four-Roller; and eighteen Roller Cores, if Six-Roller; four sets of Nippers of three each; Boxing and Shipping, or Carting and Putting-up.

The Numbers 6, 7, 26, 27 and 28 are extra heavy.

For any articles in above list not required, a deduction will be made.

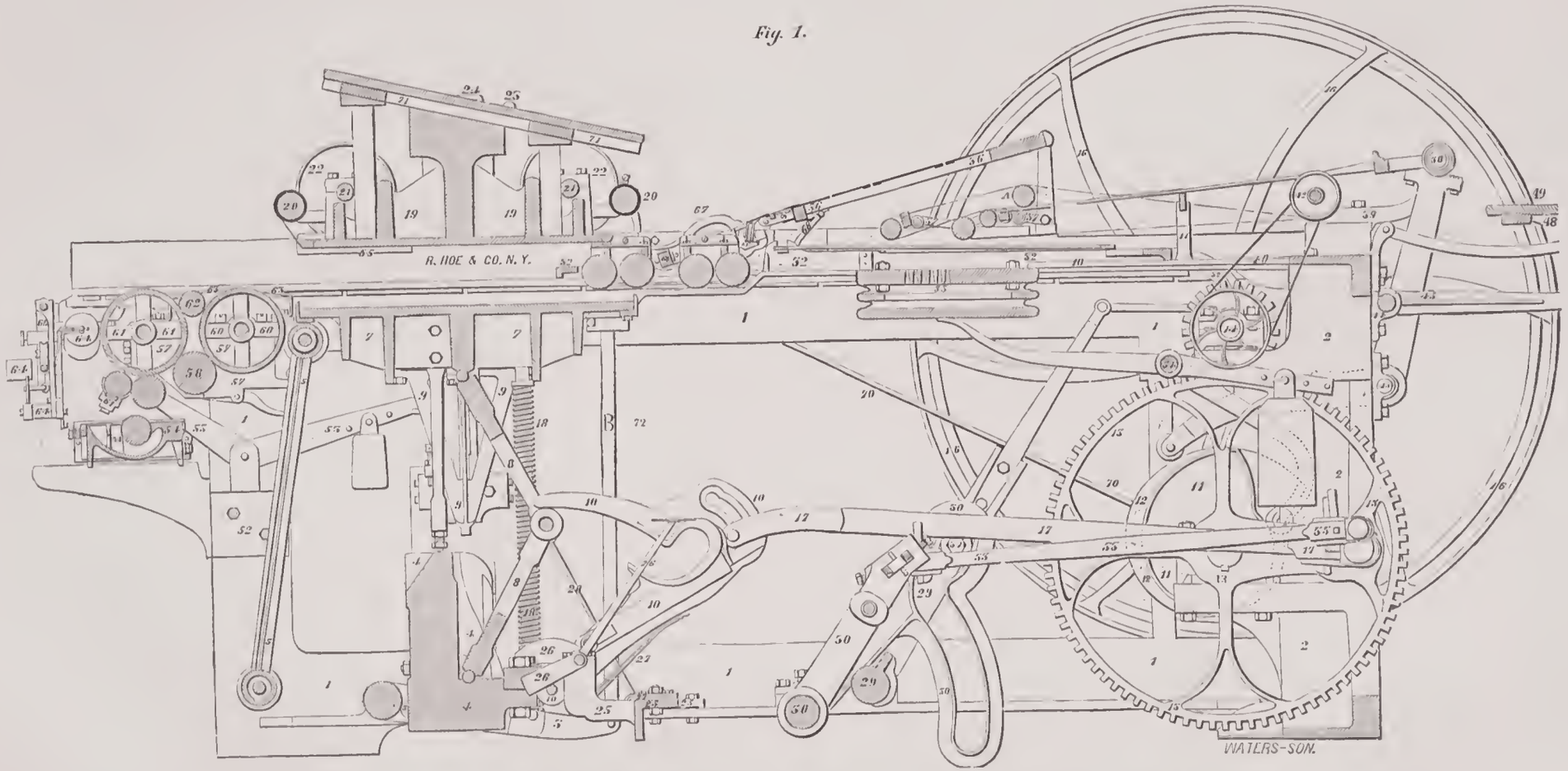
Terms of Payment—Cash on shipment at Boston, Mass.

Prices of Various Articles sometimes wanted with Adams' Presses.

In addition to those included in "Price of Press," as specified at foot of preceding page.

No.	SIZE OF PLATEN, (In Inches.)	No. of Rollers.	1 Set of 3 Nippers, Short and Medium. Nos. 1, 2, 3 or 4.	1 Set of 3 Nippers, Long. Nos. 5, 6, 7 or 8.	1 Extra Frisket.	Job and Card Frisket.	Fountain.	Fountain, with thin knife for Colored Inks.	Roller Mould.	Extra for Movable Fingers and Tape Pulleys.	Extra for covering cylinders with Zinc, each.	Shifting Bar Chases, per pair.	Patent Adjustable Point, with sliding bar.	Patent Apparatus for Adjusting Points without raising the Tympan.	Extra Impression Cam, with Slide and Roll, complete.
1	14 × 18	2	$19.50	$21.00	$4.25	$30.00	$65.00	$70.00	$14.00	$40.00	$15.00	$15.00	$40.00	$40.00	$21.00
2	19 × 23	2	19.50	21.00	5.25	50.00	70.00	75.00	17.00	50.00	17.00	20.00	45.00	45.00	21.00
3	" × "	4	19.50	21.00	5.25	50.00	72.50	77.50	17.00	50.00	17.00	20.00	45.00	45.00	23.00
4	19 × 25	2	19.50	21.00	5.50	50.00	72 50	77.50	18.00	55.00	17.50	21.00	45.00	45.00	21.00
5	" × "	4	19.50	21.00	5.50	50.00	75.00	80.00	18.00	55.00	17.50	21.00	45.00	45.00	23.00
6	20 × 25	2	24.00	27.00	6.25	50.00	72.50	77.50	18.00	60.00	21.00	21.00	45.00	45.00	35.25
7	" × "	4	24.00	27.00	6 25	50.00	75.00	80.00	18.00	60.00	21.00	21.00	45.00	45.00	35.25
8	22½ × 29½	2	24.00	27.00	6.50	.....	85.00	90.00	21.00	65.00	25.50	22.00	45.00	45.00	35.25
9	" × "	4	24.00	27.00	6.50	.....	87.50	92.50	21.00	65.00	22.00	22.00	45.00	45.00	35.25
10	" × "	6	24.00	27.00	6.50	.....	87.50	92.50	21.00	65.00	22.00	22.00	45.00	45.00	35.25
11	24 × 29½	2	24.00	27.00	6.75	.....	85.00	90.00	21.00	70 .00	26.00	22.50	45.00	45.00	35.25
12	" × "	4	24.00	27.00	6.75	.....	87.50	92.50	21.00	70.00	22.50	22.50	45.00	45.00	35.25
13	" × "	6	24.00	27.00	6.75	.....	87.50	92.50	21.00	70.00	22.50	22.50	45.00	45.00	35.25
14	23 × 34	2	24.00	27.00	6.75	.....	95.00	100.00	25.00	75.00	27.00	23.50	45.00	45.00	35.25
15	" × "	4	24.00	27.00	6.75	.....	97.50	112.50	25.00	75.00	23.00	23.50	45.00	45.00	35.25
16	24½ × 37	2	24.00	27.00	6.75	.....	97.50	112.50	26.00	80.00	28.05	24.00	45.00	45.00	35.25
17	" × "	4	24.00	27.00	6 75	.....	100.00	115.00	26.00	80.00	23.50	24.00	45.00	45.00	35.25
18	24½ × 39	2	24.00	27.00	7.00	.....	100.00	110.00	27.00	85.00	29.00	25.00	50.00	50.00	35.25
19	" × "	4	24.00	27.00	7.00	.....	102.50	112.50	27.00	85.00	24.00	25.00	50.00	50.00	35.25
20	" × "	6	24.00	27.00	7.00	.....	102.50	112.50	27.00	85.00	24.00	25.00	50.00	50.00	35.25
21	26 × 40	2	24.00	27.00	7.25	.....	100.00	110.00	27.00	90.00	30.00	25.00	50.00	50.00	35.25
22	" × "	4	24.00	27.00	7.25	.....	102.50	112.50	27.00	90.00	25.00	25.00	50.00	50.00	40.25
23	" × "	6	24.00	27.00	7.25	.....	102.50	112.50	27.00	90.00	25.00	25.00	50.00	50.00	43.00
24	27 × 40	2	24.00	27.00	7.25	.....	100.00	110.00	27.00	95.00	30.00	26.50	50.00	50.00	35.25
25	" × "	4	24.00	27.00	7.25	.....	102.50	112.50	27.00	95.00	25.00	26.50	50.00	50.00	40.25
26	30 × 40	2	24.00	27.00	7.25	.....	100.00	110.00	27.00	110.00	30.00	30.00	50.00	50.00	45.75
27	" × "	4	24.00	27.00	7.25	.....	102.50	112.50	27.00	110.00	25.00	30.00	50.00	50.00	48.50
28	" × "	6	24.00	27.00	7 25	.....	102.50	112.50	27.00	110.00	25.00	30.00	50.00	50.00	51.00
29	27 × 41	2	24.00	27.00	7.25	.....	105.00	115.00	28.00	105.00	31.00	29.00	50.00	50.00	35.25
30	" × "	4	24.00	27.00	7.25	.....	107.50	117.50	28.00	105.00	26.00	29.00	50.00	50.00	40.25
31	" × "	6	24.00	27.00	7.25	.....	107.50	117.50	28.00	105.00	26.00	29.00	50.00	50.00	43.00
32	26½ × 43	2	24.00	27.00	7.25	.....	110.00	120.00	29.00	110.00	32.00	31.00	50.00	50.00	35.25
33	" × "	4	24.00	27.00	7.25	.....	112.50	122.50	29.00	110.00	27.00	31.00	50.00	50.00	40.25
34	" × "	6	24.00	27.00	7.25	.....	112.50	122.50	29.00	110.00	27.00	31.00	50.00	50.00	43.00
35	27 × 43	2	24.00	27.00	7.25	.....	110.00	120.00	29.00	115 00	32.00	32.00	50.00	50.00	35.25
36	" × "	4	24.00	27.00	7.25	.....	112.50	122.50	29.00	115.00	27.00	32.00	50.00	50.00	40.25
37	" × "	6	24.00	27.00	7.25	.....	112.50	122.50	29.00	115.00	27.00	32.00	50.00	50.00	43.00
38	28¾ × 43	2	24.00	27.00	7.50	.....	110.00	120.00	29.00	120.00	32.00	33.00	50.00	50.00	35.25
39	" × "	4	24.00	27.00	7.50	.....	112.50	122.50	29.00	120.00	27.00	33.00	50.00	50.00	43.00
40	" × "	6	24.00	27.00	7.50	.....	112.50	122.50	29.00	120.00	27.00	33.00	50.00	50.00	51.00
41	30½ × 43	2	24.00	27.00	7.50	.....	110.00	120.00	29.00	130.00	32.00	35.00	50.00	50.00	45.00
42	" × "	4	24.00	27.00	7.50	.....	112.50	122.50	29.00	130.00	27.00	35.00	50.00	50.00	48.50
43	" × "	6	24.00	27.00	7.50	.....	112.50	122.50	29.00	130.00	27.00	35.00	50.00	50.00	51.00
44	33½ × 43½	2	24.00	27.00	8.00	.....	112.50	122.50	30.00	140.00	32.50	38.50	50.00	50.00	45.75
45	" × "	4	24.00	27.00	8.00	.....	115.00	125.00	30.00	140.00	27.50	38.50	50.00	50.00	48.50
46	" × "	6	24.00	27.00	8.00	.....	115.00	125.00	30.00	140.00	27.50	38.50	50.00	50.00	51.00
47	30½ × 45	2	24.00	27.00	7.75	.....	115.00	125.00	31.00	140.00	35.00	39.00	50.00	50.00	45.75
48	" × "	4	24.00	27.00	7.75	.....	117.50	127.50	31.00	140.00	30.00	39.00	50.00	50.00	48.50
49	" × "	6	24 00	27.00	7.75	.....	117.50	127.60	31.00	140.00	30.00	39.00	50.00	50.00	51.00
50	32 × 46	2	24.00	27.00	8.25	.....	120.00	130.00	32.00	150.00	37.00	42.50	50.00	50.00	45.75
51	" × "	4	24.00	27.00	8.25	.....	122.50	132.50	32.00	150.00	31.50	42.50	50.00	50.00	51.00
52	34 × 48½	2	24.00	27.00	8.50	.....	125.00	135.00	34.00	160.00	40.00	47.50	50.00	50.00	75.00
53	" × "	4	24.00	27.00	8.50	.....	127.50	137.50	34.00	160.00	32.50	47.50	50.00	50.00	75.00
54	" × "	6	24.00	27.00	8.50	.....	127.50	137.50	34.00	160.00	32.50	47.50	50.00	50.00	75.00

Fig. 1.



Outline Cut of Bed and Platen Power Printing Machine (Adams' Patent.)

Directions for Putting-up Bed and Platen Printing Press.

(ADAMS' PATENT.)

I.

Place the side frame, No. 1, in an upright position, with blocks about two inches thick under each end.

Take the large end frame, No. 2, and bolt it firmly to the side frame as marked.

Put the spring vibrator, No. 3, in its place, resting in a bearing in the lower part of the side frame.

Next put one end of the bottom bar, No. 4, into the rectangular hole in the side frame, with the toggle-side towards the end piece, No. 2.

Put in its place and secure with its bolts the small end frame, No. 5. Insert one end of a small stay rod into a hole not far from the middle of the upper rail of the side frame; bring up the other side frame, No. 6, and raise it on blocks to the same level as No. 1. Then square the frame and level it accurately by the top rails of the side frames, secure it with the bolts and nuts, and the press frame is complete.

II.

The bed, No. 7, must now be put in its place, the projections on its ends entering between guides on the side frames.

Next the toggles, No. 8, may be put in, their lower end joined to the bottom-bar, No. 4, and their upper end to the bed, No. 7, and secured by caps and screws.

The bed-guides, No. 9, may now be bolted to the bed; the impression cam, No. 10, connected with the bottom-bar, and the bed so placed as to bring the roller that is in the toggle in position to enter the mouth of the impression-cam when it is raised up and pressed forward.

III.

Place the bellows cam, No. 11, and fly cam, No. 12, on the shaft with the large tooth-wheel, No. 13, and put the shaft in its bearings on the large end frame, No. 2. Then put the fly-wheel shaft, No. 14, with the pinion and small pulley on it, into its bearings, taking special care to gear the wheel and pinion together as indicated by marks on them.

IV.

The platen, No. 19, must now be got ready.

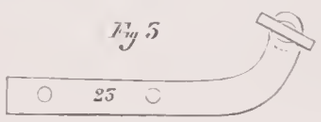
First, bolt to the corners of the platen the supports that carry the tympan-sheet rollers, No. 20.

Put the platen wheel shafts, No. 21, in their places, and the wheels, No. 22, on the shafts as marked.

Then raise the platen to its place, with the wheels resting on the top rails of the press.

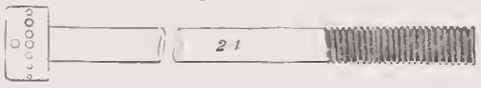
The brackets with thumb-screws, No. 23, (Fig. 3.) may now be screwed on to the ends of the platen.

Fig 3



Now screw the impression rods or side bolts, No. 24, (Fig. 4,) into the bottom bar,

Fig 4



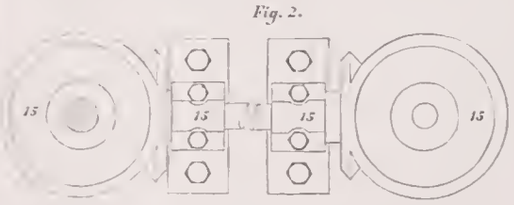
No. 4, until the marks on the threads of their screws come down to the upper surface of the bottom bar. There are two guide pieces, which go between the impression rods and the side frames to keep them at proper distances. The lower ends of the rods will rest on screws fixed at the bottom of the frame, which should not be turned, as they are already adjusted.

In order to keep the bed and platen parallel, the side bolts have holes drilled at equal distances in their heads to receive the points of the thumb screws, 23. These holes are numbered 1. 2, &c., and points of both screws must be always in holes of the same number.

V.

Put in its place the long shaft, No. 15, (Fig.2,) with a bevel wheel on each end of

Fig. 2.



it, and secure the bearings that support it; this shaft runs lengthwise the press, outside the frame, to drive the ink cylinders.

The bevel wheel on one end of the shaft, No. 15, is driven by another bevel wheel, which may now be put on the fly wheel shaft, No. 14, and forced up to the shoulder.

N. B.—On two-roller presses a pair of grooved pulleys and a round band, as shown in the cut in the catalogue, are used instead of this shaft and bevel gearing.

The cone fly-wheel, No. 16, may now be put on the shaft, No. 14. Then take the large connecting rod or pitman, No. 17, attach one end of it to the large part of the crank-pin on the wheel, No. 13, and the other end to the

impression cam, No. 10, and then by turning the fly-wheel raise the bed and put the springs, No. 18, in their places and connect the bed, No. 7, and the spring vibrator, No. 3, together with the two flat connecting rods, No. 72.

VI.

The cross piece, No. 25, that rests on ledges which project inside from the lower rail of the side frames, is next to be put in its place near the bottom bar. This cross piece which is only sent with some sizes, serves to support one end of the treadle cam shaft, No. 26, the spring, No. 27, and diagonal toggle rest, No. 28.

In order to get the treadle cam shaft in its place, disconnect the pitman, No. 17, from the impression cam, No. 10, let the cam down to the cross piece, and put the shaft in its bearings. The impression cam may then be lifted up and attached to the pitman again, and the bed raised up by turning the fly-wheel, after which the spring, No. 27, and the rest, No. 28, may be fixed in their places on the cross piece, No. 25.

Next put into bearings on the lower rails of the frame, the rocker shaft, No. 29, which has arms for moving the frisket carriage, and also the shaft, No. 30, which has the frisket carriage cam on it. A stud that carries a friction roller, No. 31, may be put into the slot in the arm of No. 29, and the friction roller, No. 31, will enter into the carriage cam, No. 30. Put the top boxes on the journals, then the caps, which must be screwed down, and the set screw with check nuts adjusted upon them.

VII.

Put the frisket carriage, No. 32, in its place and connect it with No. 29. The small connecting rod, No. 33, must now be attached; one end to the small crank-pin on No. 13, and the other to the stud on No. 29. Put the bellows shaft with four arms, No. 34, into bearings which are inside of the frame near the fly-wheel shaft. Two of the arms are made to bear up against the bottom of the bellows, another is to hang a counter weight upon, and the fourth has a roller in one end which runs upon the bellows cam, No. 11.

Set the bellows cam up to the shoulder on the main shaft so that the marks on the shaft and on the cam coincide, and by means of the set screw fasten the cam to the shaft.

Put the bellows, No. 35, in place; it is suspended by four bars, two of them resting on the stay rod that crosses the frame near the bed, and the others bolted underneath the top rail of the end frame, No. 2.

VIII.

Put the pointing board, or tympan, No. 36, into its place; it is pivoted at its upper edge to two small pillars, which should first be put on to the pivots of the pointing board and then the shanks of the pillars put into the holes provided to receive them in the top of the frame.

The brass frame carrying the tape rollers, No. 37, may now be put in its place; it goes under the pointing board with the vibrating roller A, uppermost, and is supported at two of its corners by pivots resting in holes in the pillars that support the pointing board.

IX.

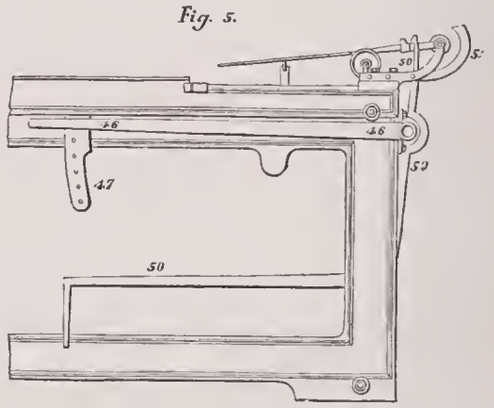
Next take the fly-shaft, No. 38, and the brackets, No. 39, put the brackets on to the shaft and screw them down to their places on the top of the frame at the end near the main shaft.

Put in place the board, No. 40, to cover the tooth wheels, and then the fly rest, No. 41, in the holes in No. 40 as marked. The tape pulley shaft, No. 42, may now be put in, with its journals resting in the supports which are attached to the brackets, No. 39.

Instead of the shaft, No. 43, with its two arms, one with a roller bearing on the fly cam, and the other furnished with a segment rack to work into the fly shaft pinion, as shown in the cut, we sometimes send a straight bar which slides in a bracket screwed to side frame of press, and the lower end of which carries a roller resting on the fly cam, while a straight rack on its upper end gears into the fly shaft pinion.

The brackets, No. 44, may now be put on the end of press frame under the fly near the top, the shaft with arms, No. 45, into the brackets, and the long cast iron lever, No. 46, (Fig. 5,) on that end of the shaft which

Fig. 5.



projects outside the side frame. Attach the wooden cross, No. 48, to the arms, No. 45, and lay the board, No. 49, on the cross. This forms the table to receive the printed sheets from the fly, and is kept in position by the lever, No. 46, and the register, No. 47.

The crooked lever, No. 50, (Fig. 5,) may be put in its place; it extends from the fly down inside the frame to the foot of the person pointing the sheets, and holds the fly down when there is no sheet on it.

The spring No. 51, (Fig. 5,) to check the fly may now be fastened in its place on one of the brackets, No. 39.

X.

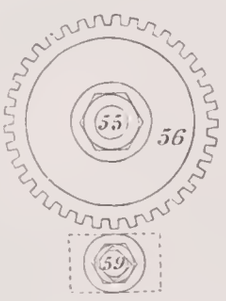
The fountain brackets, No. 52, may now be bolted in their places inside the side frames at the end of press nearest the bed.

Put in the two levers, No. 53, which carry the composition roller from the fountain to the distributing cylinder, and then the fountain, No. 54, on the brackets, No. 52.

XI.

The stud, No. 55, (Fig. 6,) that carries the intermediate gear must now be put in place and the nut screwed up, as it cannot be done conveniently afterwards.

Fig 6



Bolt the hangers, No. 57, on inside of side frame above the fountain.

Put the cylinder, No. 60, in the bearings in the hangers, No. 57, nearest the bed, and the cylinder, No. 61, with the wood covered vibrating roller attached, in the other bearings in hangers, No. 57.

Put the two steel bridges, No. 63, on top of the hangers, No. 57, and screw fast.

Put the bevel wheel on the end of cylinder, No. 61, to gear in to the one on the shaft, No. 15, and the two spur wheels on to the other end of cylinders, Nos. 60 and 61, and connect them with the intermediate wheel, No. 56.

XII.

For a two roller press, Section XI is omitted and the following substituted.

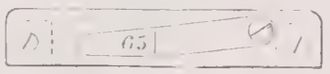
Put the distributing cylinder, No. 61, with the wood covered vibrator attached, in its place at the end of the press over the fountain, and the grooved pulley, as before mentioned, in Section V, on the end of the cylinder shaft.

Attach the traveller and frame, No. 64, to the end of the press frame over the fountain. To get the traveller in place in the frame, unscrew one of the nuts on lower rod and slip the rod endwise so as to admit it.

XIII.

The inclined plane No. 65, (Fig. 7,) must

Fig 7



now be fastened to the side frame No. 1. Put the nipper frame, No. 66, on the frisket carriage, No. 32, and screw the nipper cams, No. 67, to the side frames inside between the pointing board and platen. The lever, No. 68, for operating the pointing apparatus, may now be put in its place under the pointing board with one end between the point levers and the sheet iron cover.

The pointing board must always be lifted by taking hold of the side where the sheet pointer stands.

The brass hook, No. 69, (Fig. 8,) should

Fig. 8

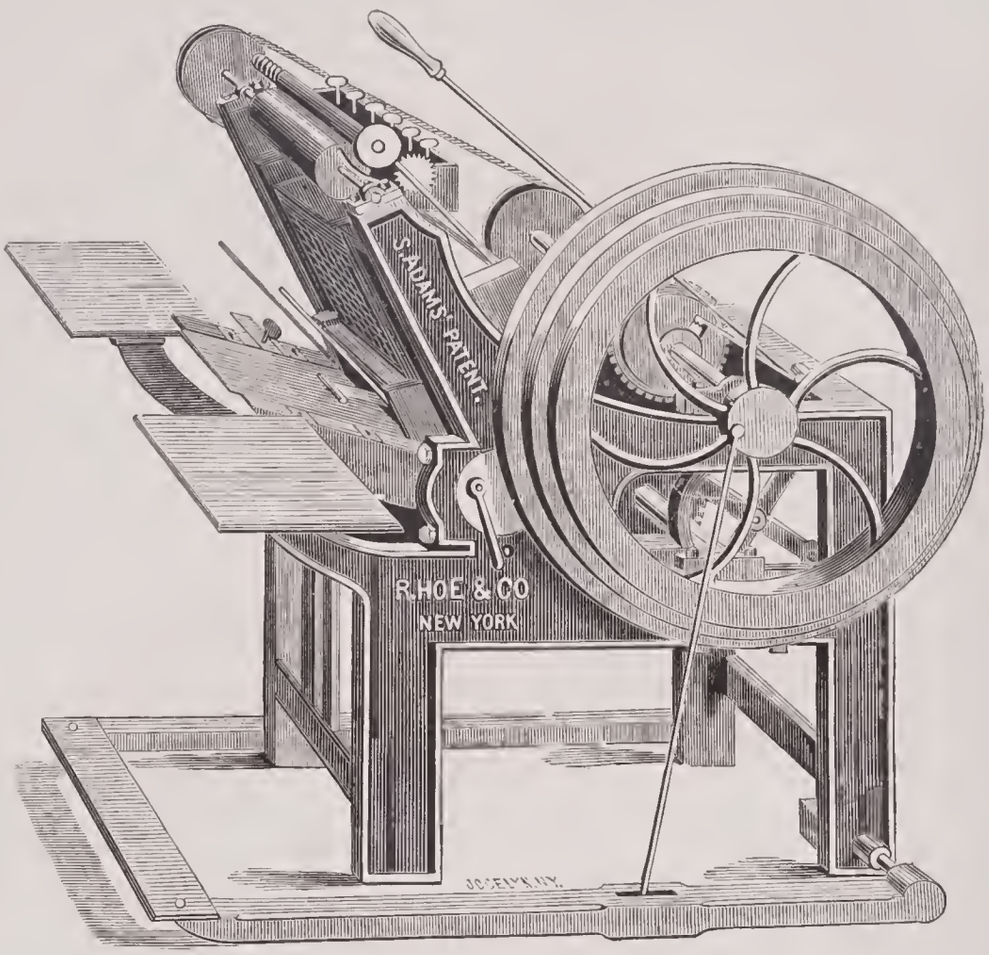
be screwed to the under side of pointing board; it serves to hold that and the tape roller frame, No. 37, up, while the platen is drawn off to put on, take off, or correct the form.

Strong tape bands are to be put on the pulleys and rollers, and a leather band on the pulley on the fly wheel shaft, No. 14, and around the small pulley on the shaft, No. 42, as shown in Fig. 1. The drawer may be put on to the platen, the same blanketing being used as on a hand press. Draw the tympan cover of paper or fine cambric, under the platen and attach its ends to the rollers, No. 20; on the end of one of the rollers is suspended a small lever which carries a pawl to operate a ratchet on the roller. This lever is worked by a small crank screwed to the end of main shaft, and a rod, No. 70, connects the crank and lever.

The hook end of this rod is supported by a guide piece screwed into the side frame.

The table, No. 71, to hold the heap of paper, is to stand on the platen.

What remains will be easily understood by a good pressman.



Bed and Platen Job Printing Press.

(ADAMS' PATENT.)

This Press is worked by a treadle, but steam-power may be employed if desired. It is so arranged that the impression can be thrown off in an instant by a hand lever, without stopping the press.

The work is placed to the adjustable guides on the platen, which lies conveniently inclined, and is lifted up to the bed by means of a cam on the main shaft. The distribution is excellent.

A Roller Mould, 2 sets of Roller Stocks, and 3 Chases are furnished with the press.

Sizes and Prices.

	Size of Bed.	Size of Platen.	Space occupied on floor.	Weight Boxed.	Price.
No. 1	8 × 10½	5 × 8	3 ft. 9 in. × 4 ft.	1,400 lbs	$400.00.
" 2	11¼ × 14	9 × 12	4 ft. 3 in. × 4 ft. 8 in	2,180 "	650.00.

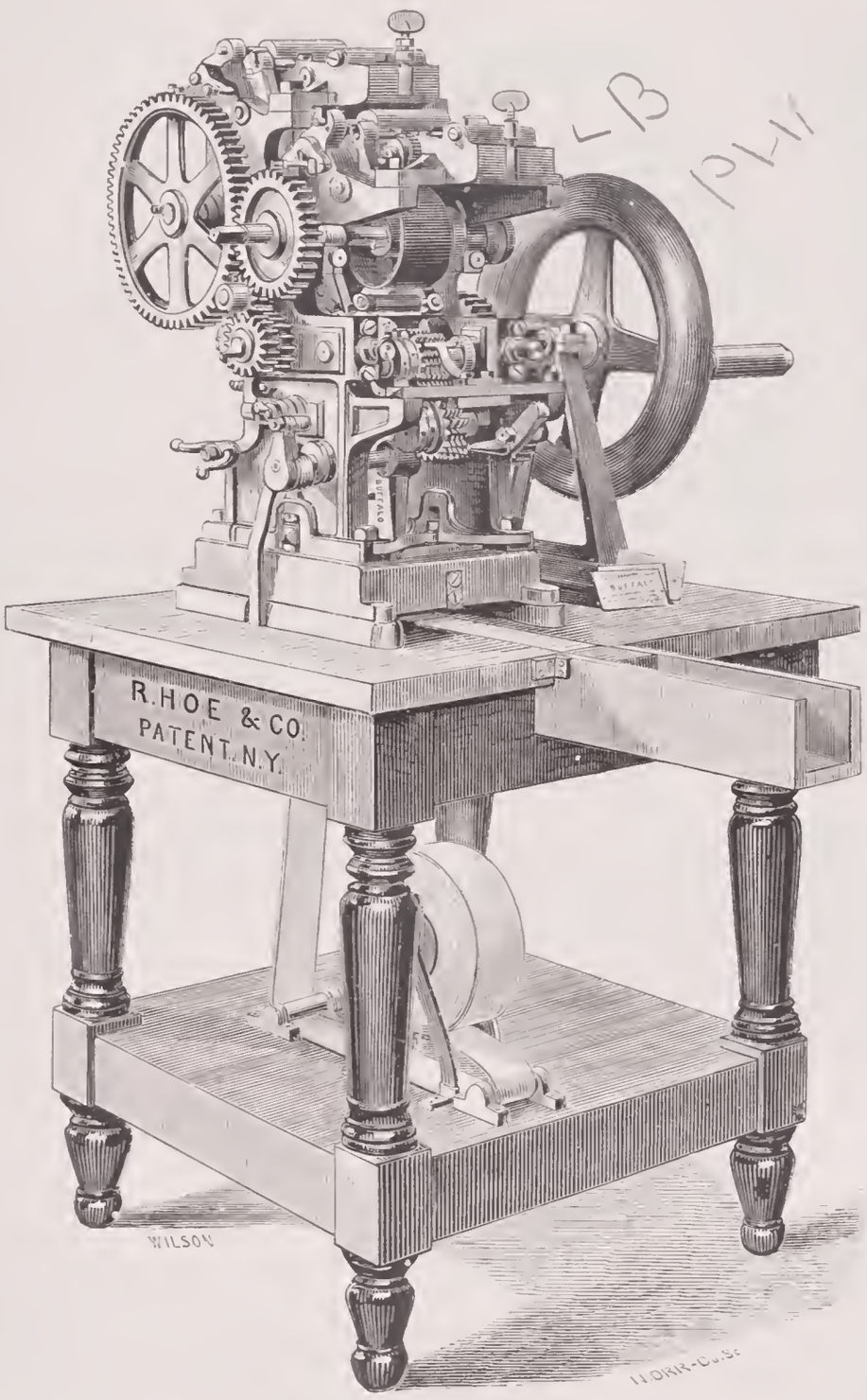
Driving Pulley, Tight and Loose Pulleys, Counter-shaft, Hangers and two Cone Pulleys, for steam power, extra, $65.

Additional fountain, $35.

Additional chases, each $160.

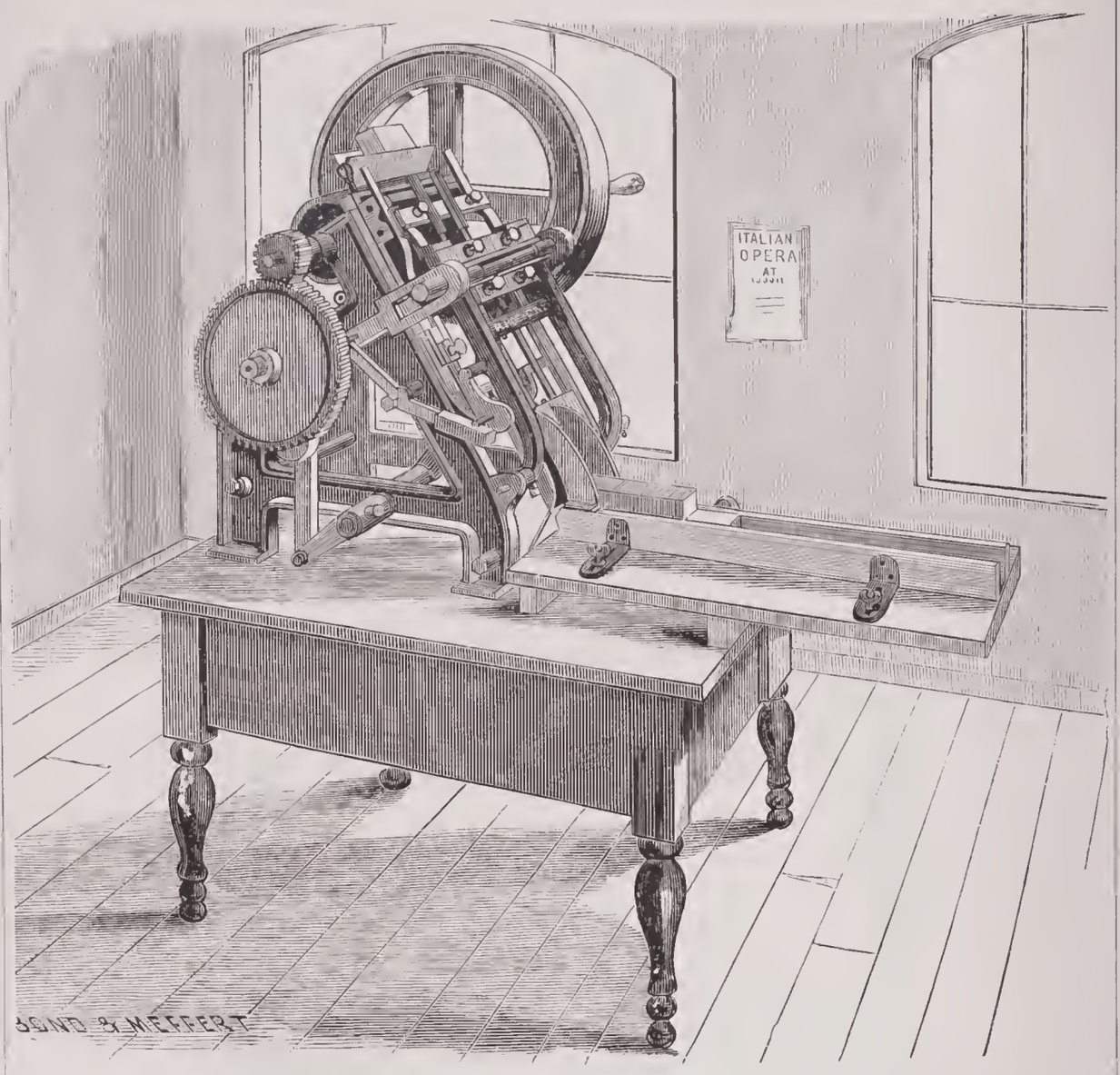
Boxing and Carting, $15.

Terms of Payment—Cash at manufactory in Boston.



Railway Ticket Machine.

In this machine the forms are placed on a cylinder, thus ensuring a continuous rotary movement. The tickets are worked from a roll of paper, and are printed at the rate of 10,000 or 12,000 per hour, numbered, cut and deposited in a receptacle in regular order, at a single operation. The number is printed in a different color from the body of the ticket, and it can be changed with great facility. The machine occupies a space of about two feet square.



Patent Numbering Card Press.

This Press is designed for printing and numbering, at one operation, railway tickets, theatre tickets, checks, and all cards of a similar character. Its general arrangement is the same as the Card Press on page 56, with the additional mechanism for numbering the tickets consecutively and depositing them in a trough in numerical order. It will number up to 10,000, and the wheels can be set at 0 or at any required figures with great facility. The machine is set on a hard wood table furnished with drawers for roller stocks and other implements.

A Roller Mould, two sets of Roller Stocks and three Chases are furnished with the press. Platen, $4\frac{1}{2} \times 6$ inches.

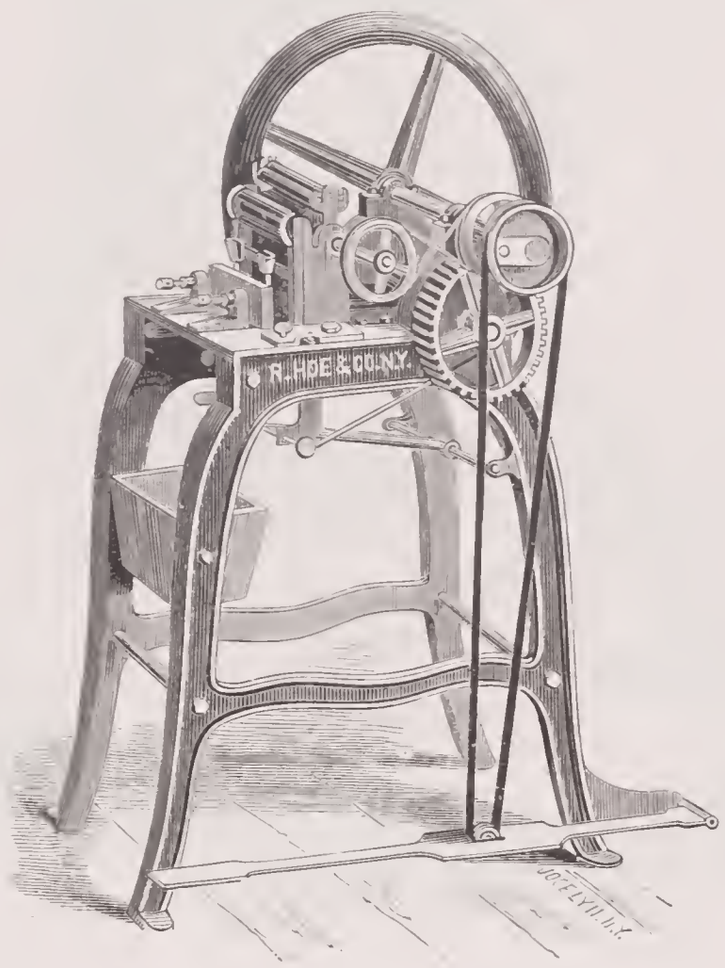
Price, $400.

Boxing and Carting, $5.50.

For printing higher numbers, extra.

Driving Pulley, Fast and Loose Pulleys, Counter-shaft, Hangers and two Cone Pulleys, for steam power, extra, $50.

Terms of Payment—Cash at manufactories.



Patent Machine Card Press.

This machine is worked either by crank or treadle, and will print from 1,000 to 1,500 cards per hour, in the best manner. The bed is placed vertically, and the impression is given by a cam which brings it forward against the platen.

A Mould, two sets of Roller Stocks, and three Chases are furnished with each press.

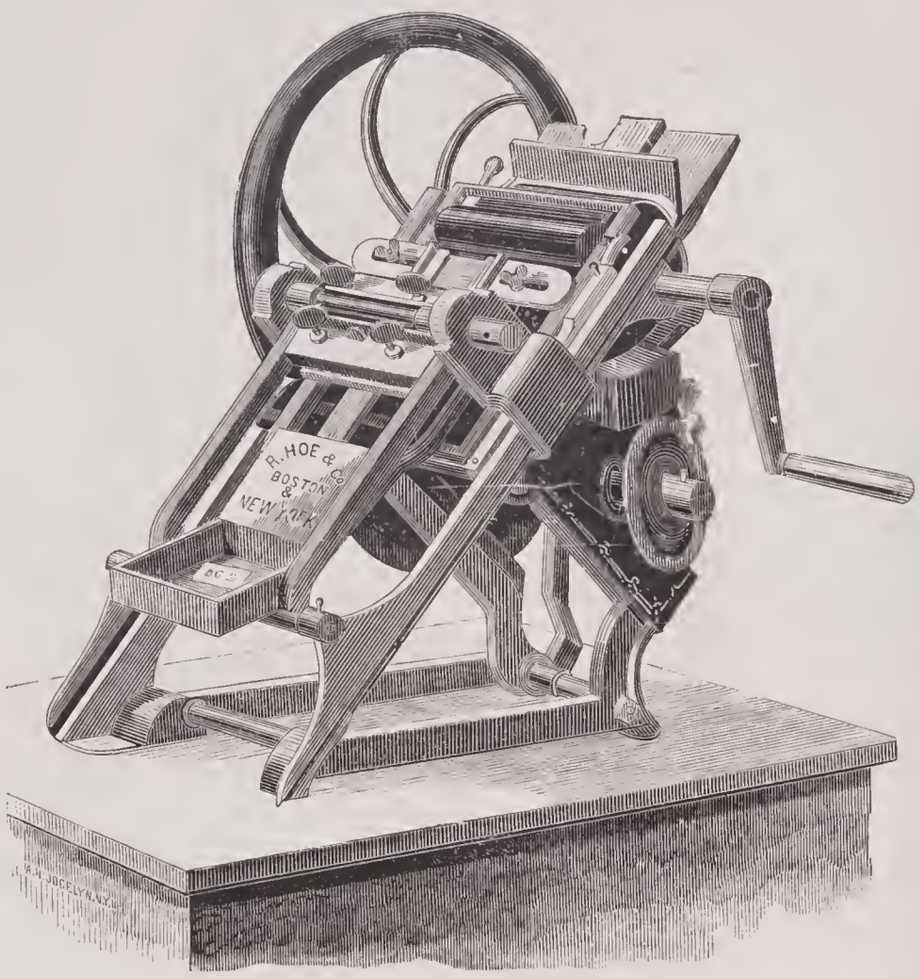
Size of Chase inside, 5 × 6¼ inches.

Price, $250.

Boxing and Carting, $5.

Driving Pulley, Fast and Loose Pulleys, Counter-shaft, Hangers and two Cone Pulleys, for steam power, extra, $50.

Terms of Payment—Cash at manufactory in New-York.



Small Card Press.

In this Press the form is placed on an inclined bed, and receives ink from two rollers. The impression is given by a cam and may be regulated by platen screws. It has adjustable feed-guides, a large distributing cylinder, card rack and receiver, and is well adapted for long service. The removal of a bar, easily effected, allows the platen and guides to be thrown back and thus exposes at one glance bed, platen, guides and rollers, greatly assisting correction, making ready or cleaning-up. The movements are simple and the motion easy, enabling the operator to print from 1,000 to 2,000 per hour. Platen 4 × 5 inches.

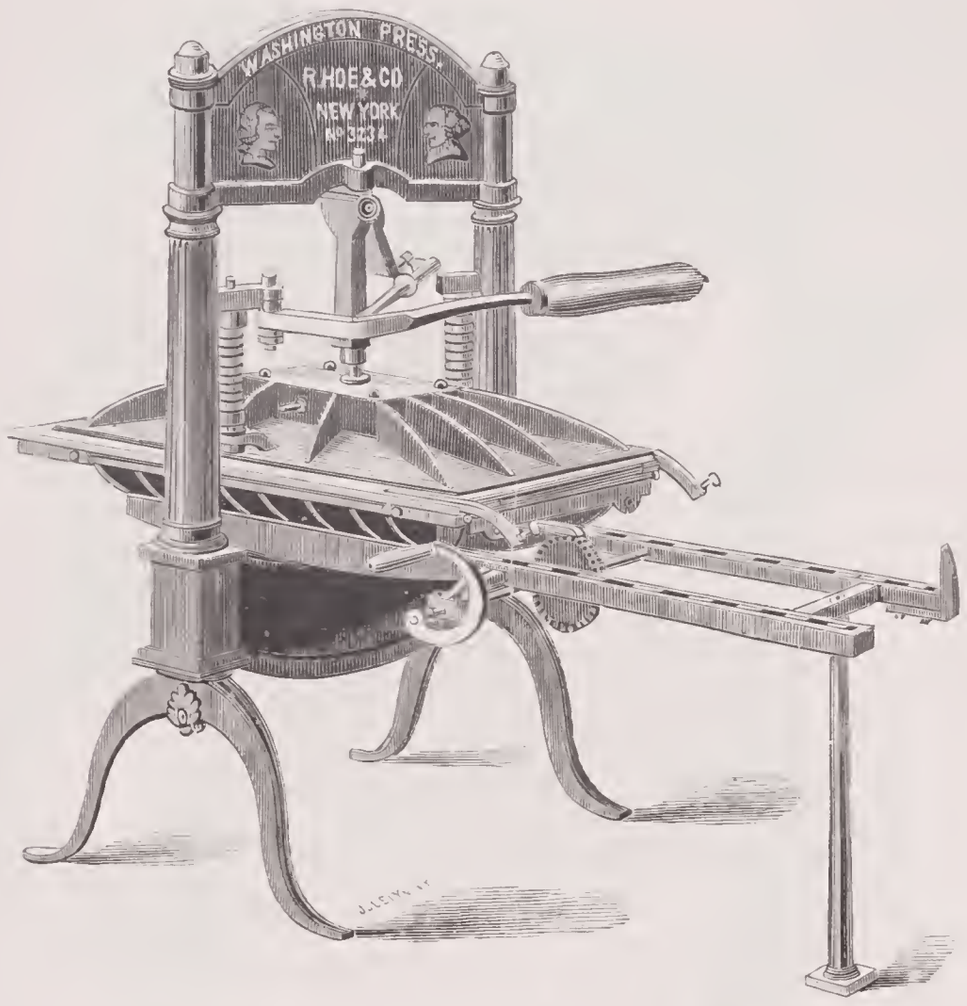
A Roller Mould, two sets of Roller Stocks and three Chases are furnished with the press.

Price, $125.

Boxing and Carting, $3.50.

Driving Pulley, Fast and Loose Pulleys, Counter-shaft, Hangers and two Cone Pulleys, for steam power, extra, $50.

Terms of Payment—Cash at manufactories.



Patent Washington Printing Press.

The celebrity which our Patent Washington and Smith Hand Presses have obtained during the last forty years, renders any remarks upon their superiority unnecessary. They are elegant in appearance, simple, quick and powerful in operation, and combine every facility for the production of superior printing. Each press is tried at the manufactory, and warranted for one year.

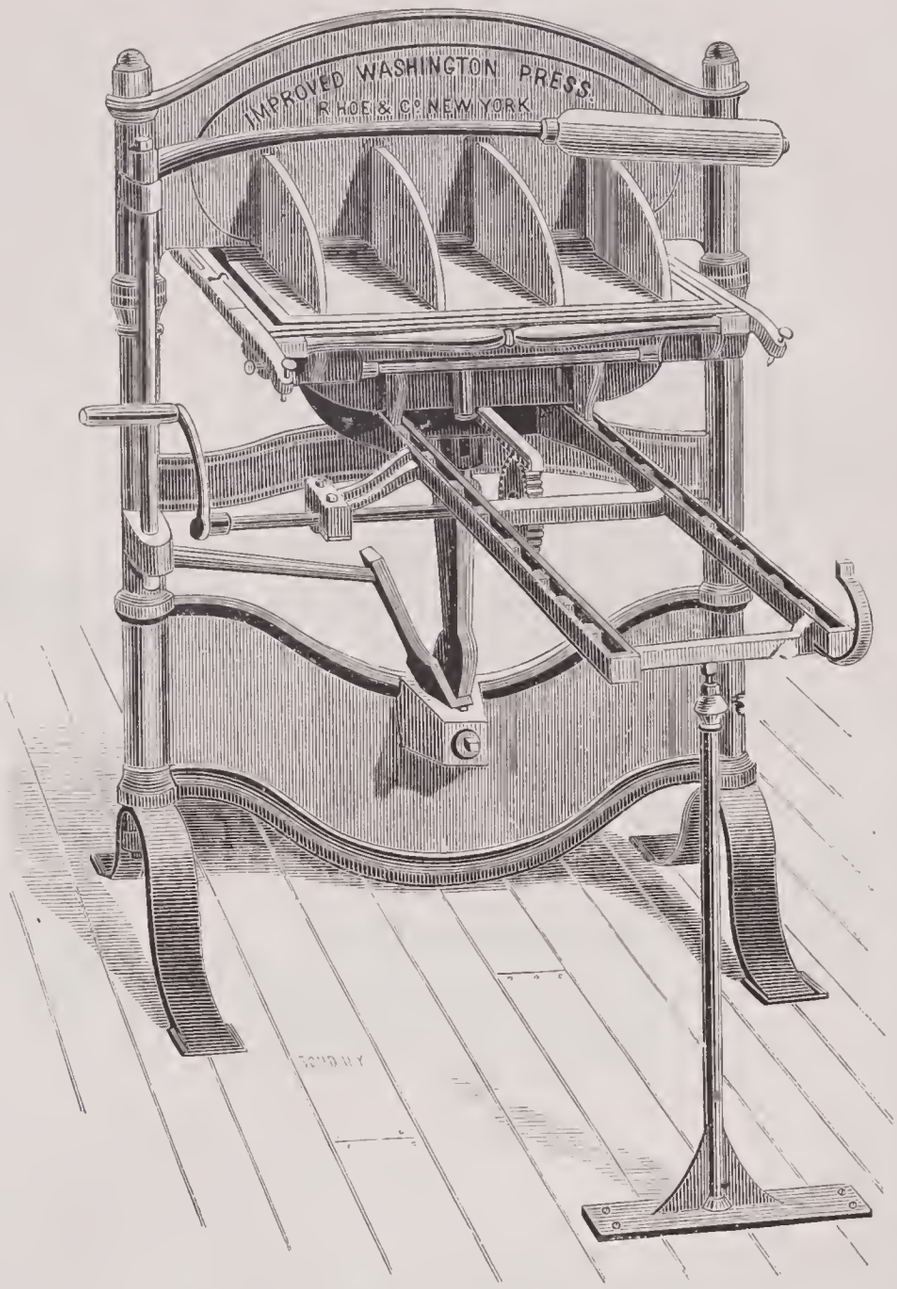
Sizes and Prices.

	Platen.	Bed.	Weight boxed.	Price.
Foolscap	14½ × 19½ inches	18 × 24 inches	710 lbs	$250.00.
Medium	19 × 25 "	22½ × 29½ "	1,310 "	300.00.
Super Royal	22½ × 28 "	26 × 32½ "	1,475 "	330.00.
No. 1	21 × 30 "	24½ × 34½ "	1,510 "	345.00.
" 2	22 × 32½ "	25½ × 37 "	1,540 "	360.00.
" 3	23 × 35 "	26½ × 39½ "	1,870 "	375.00.
" 4	24 × 37 "	27½ × 41½ "	1,980 "	390.00.
" 5	25 × 39 "	28½ × 43½ "	2,150 "	415.00.
" 6	26 × 41½ "	29½ × 46 "	2,270 "	435.00.
Mammoth	34½ × 43½ "	38½ × 48 "	"	575.00.

Above price includes two pairs of Points, 1 Screw Wrench, 1 Brayer, 1 Slice and 1 extra Frisket.

Boxing and Carting or Carting and Putting-up, $7.50. If the frame is made to be taken to pieces, $15 extra.

Terms of Payment—Cash at manufactory in New-York.



Improved Washington Press.

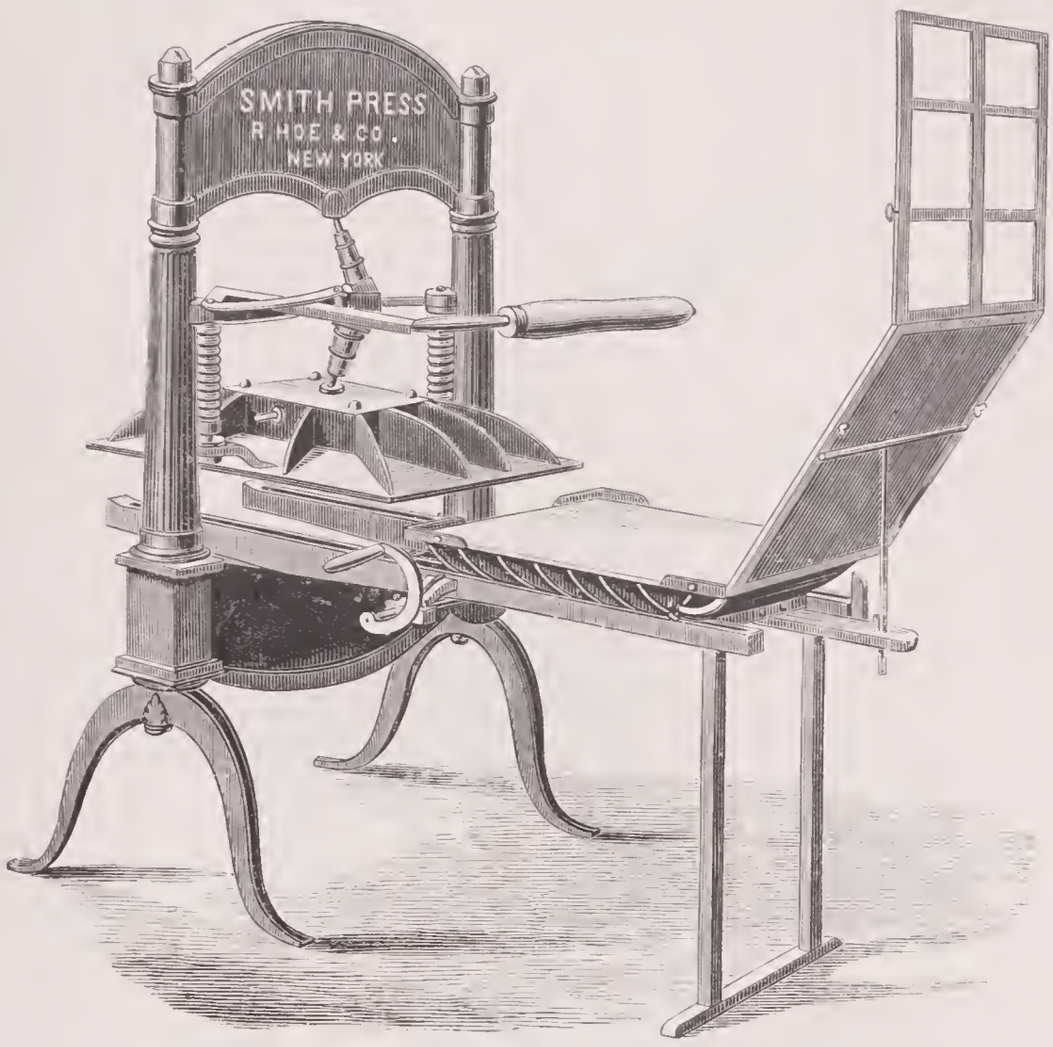
This is a modification of the Washington Press as represented on preceding page. It takes up much less room in height, and is equally simple, quick and powerful in its operation. The sizes and prices are the same.

Directions for Putting-up the Improved Washington Hand Press.

First, put in the rods through the columns from below, then put the back slide piece through the cross brace between the columns. Next, put on the top or platen and secure the same with the nuts; observe to have the key holes in the bottom of the rods parallel with the frame, so as to admit of the legs being keyed on.

Next, put in the vertical shaft connected with the impression handles, then put on the feet or legs, and drive in the keys to secure them. Stand the frame up and level it from the under side of platen, lay the ribs on fronting towards the name plate with the standard under the outer ends, and the standard and lever right under them on the frame with its adjusting wedge in its place, and connect the lever to the impression shaft.

Screw in the rack pinion, crank and shaft, also screw the rack to the under side of bed, lay the bed into the ribs, run it under the platen to its proper place, put a pair of bearers on the bed, and take an impression, and level up the outer standard to keep the ribs easy to work in their place.



Patent Smith Printing Press.

Sizes and Prices same as those of Washington Presses.

Directions for Putting-up Washington and Smith Hand Presses.

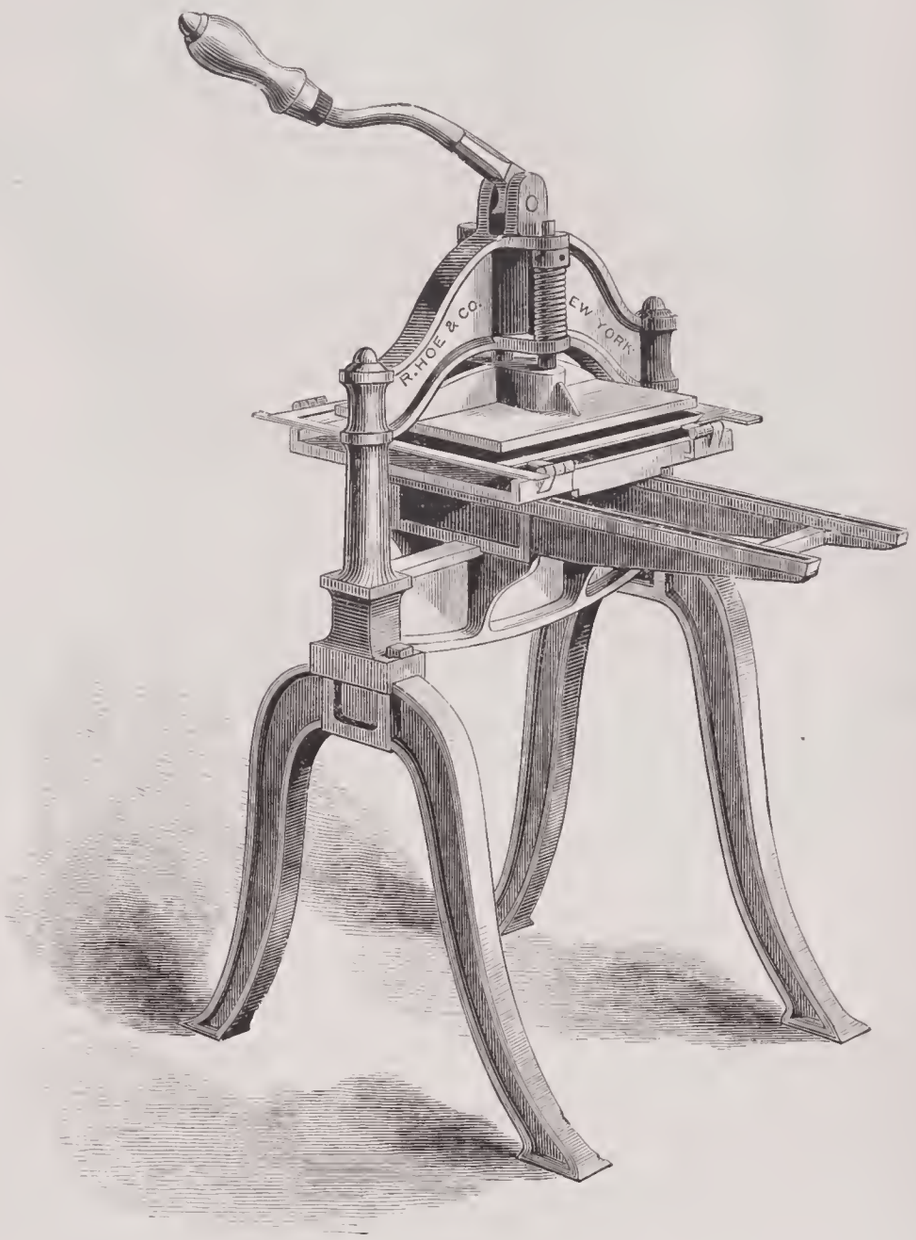
Observe that all the connecting parts are marked or indented by points.

After setting the frame upon its legs and putting on the ribs and bed, lay the platen on the bed, placing under it two bearers about type high. Then put the springs in their places and the nuts over them, and pass the suspending rods through them, observing to place the rods so that the indentations on them correspond with those on the platen. Give the nuts two or three turns, then run in the bed so as to bring the platen under the rods, and screw them fast to the platen, after which put in the bar-handle, standard and lever, (or wedge and knees if a Smith Press.) Turn the nuts on the suspending rods, so as to compress the springs just enough to give the platen a quick retrograde motion, observing at the same time to get the surface of the platen parallel with the surface of the bed.

After having put the press together and levelled it, be particular not to raise the end of the ribs by the gallows, but let it go under rather loose, which will have a tendency to make the bed slide with more ease on the ribs.

The size of the press is marked on the front end of the platen.

Presses of large size destined for Mexico, South America, or other mountainous regions where there are no carriage roads, may have their frames made so that they can be taken to pieces and packed in small boxes.



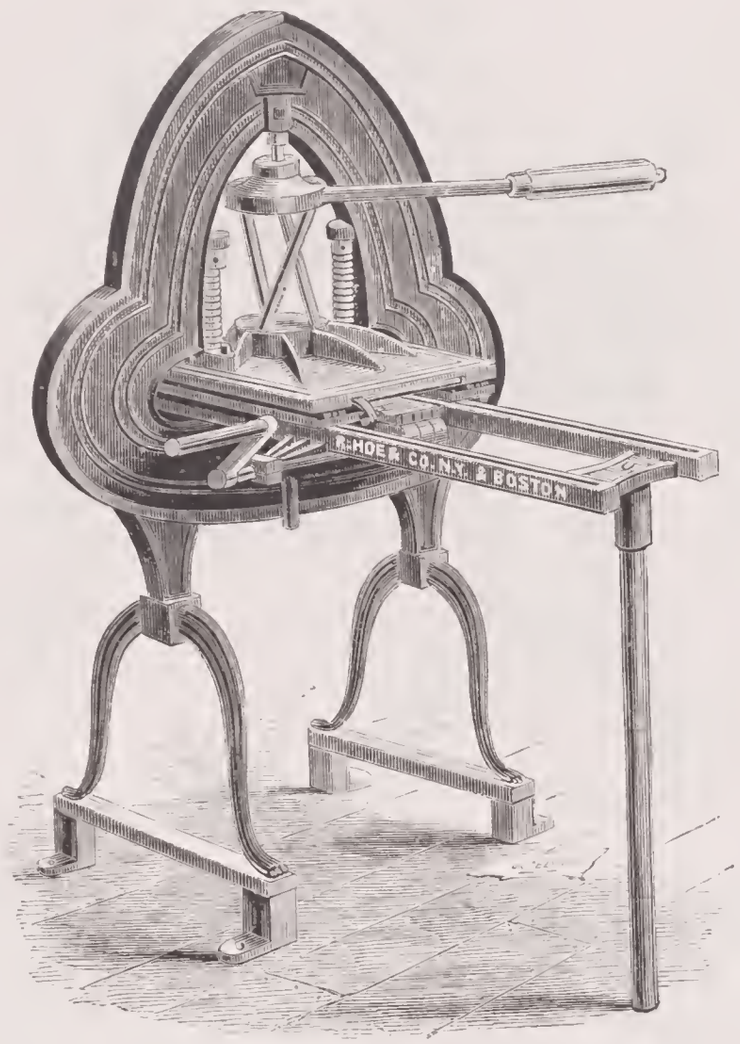
New Hand-Lever Printing Press.

Sizes and Prices.

No. 1, platen 7×10 inches, bed 10×13 inches..... $75.00.
" 2, " 10×14 " " 14×17 " .....100.00.

Boxing and Carting, $3 to $5.

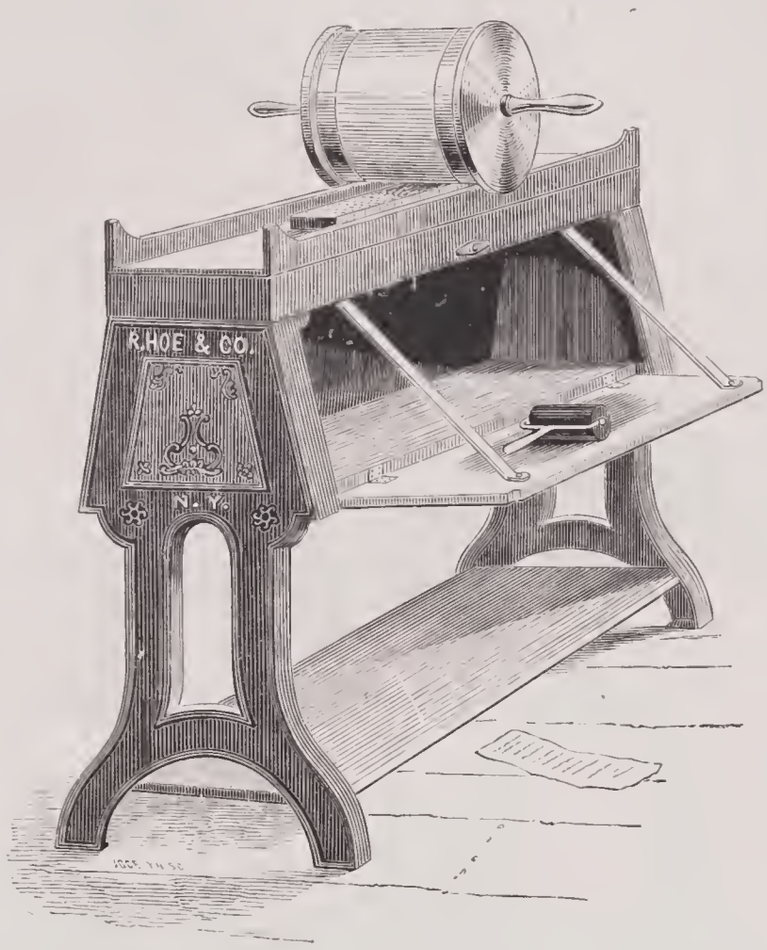
Terms of Payment—Cash at manufactory in New-York.



Stansbury Hand Press.

Bed 13 × 16¼ inches.
Price, $150.
Boxing and Carting, $2.

Terms of Payment—Cash at manufactory in Boston.



Ready Proof Press for Newspaper Work.

This machine consists of a cast-iron bed and railway, supported by a cast-iron frame. The solid iron cylinder is of weight sufficient to give the requisite impression; its surface is turned true and is covered with a blanket. The railway raises it above the level of the bed as much as the height of the type and the thickness of the galley bottom.

The frame is furnished with a closet to hold the ink-roller and damp paper; the door, when let down, can be used as a distributing table.

The machine should stand level, so that the cylinder will rest at either end. When a proof is wanted, place the galley on the bed, ink the matter, lay on the slip of paper, and roll the cylinder to the other end of the railway.

Size of Bed, $9\frac{1}{2} \times 49$ inches.

Price, $110.

The above includes Proof-roller, Boxing and Carting.

Terms of Payment—Cash at manufactory in New-York.

Ready Proof Press for Jobbing.

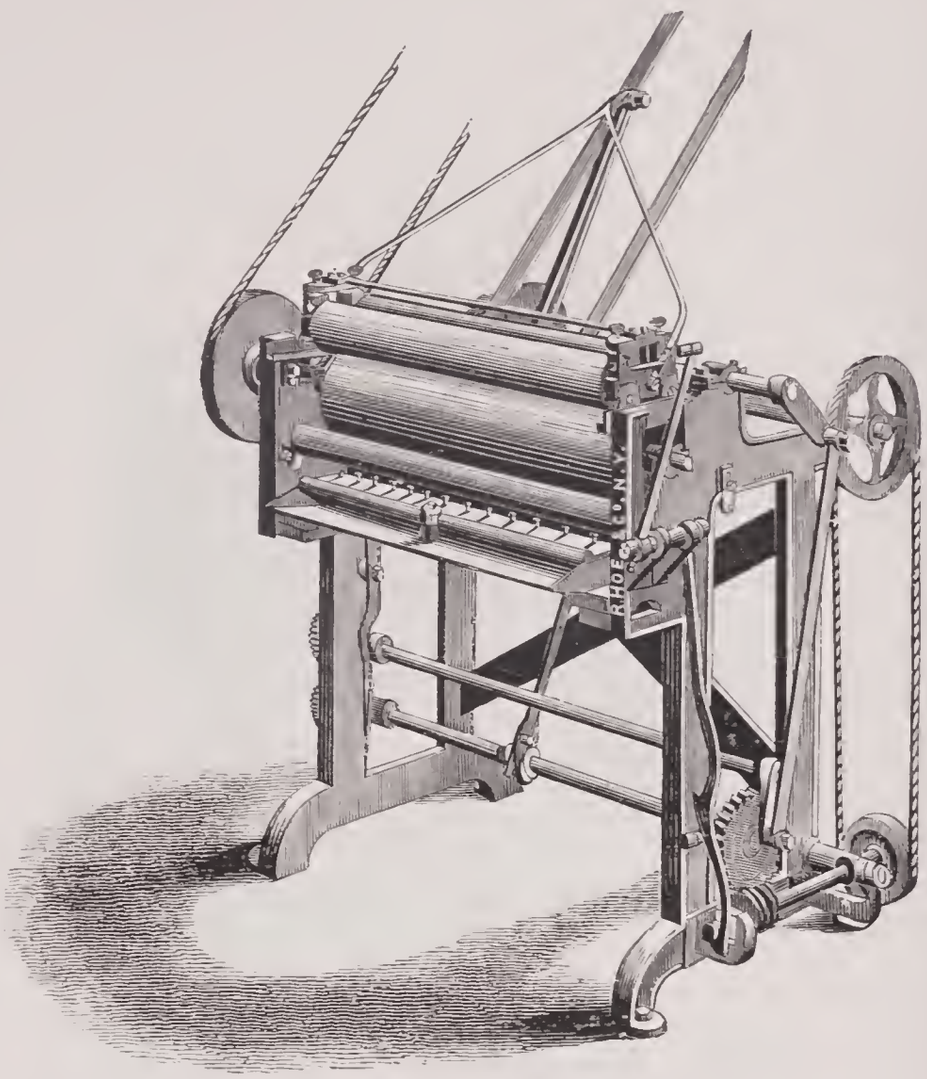
This machine is on the same principle as that on the preceding page. The bed is separate from the frame, so that it can be moved about with facility; if desired, the frame may be entirely dispensed with, and the bed laid on any ordinary counter. The frame is of hard wood, well seasoned, handsomely finished and varnished, and very strong; it is furnished with a closet, the door of which when let down, can be used as an ink table. This size is especially intended for job offices.

Sizes and Prices.

With bed	16 × 28	inches inside,	with	table,	$80 00.
" "	16 × 28	"	"	without "	65.00.
" "	9 × 27	"	"	with "	65.00.
" "	9 × 27	"	"	without "	47.50.

The above price includes Proof-roller, Boxing and Carting.

Terms of Payment—Cash at manufactories.



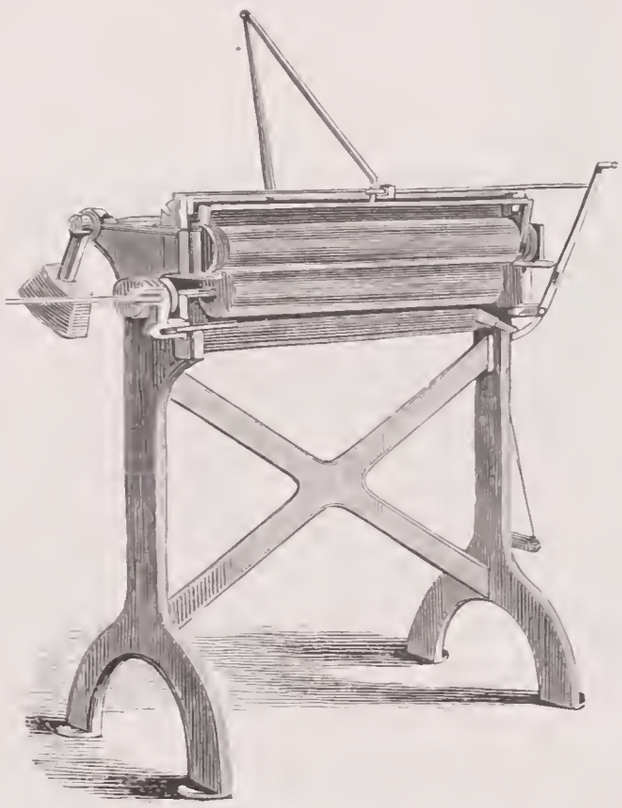
Patent Hand Press Steam-Inking Machine.

In consequence of the introduction of wood-cut illustrations into the finest letter-press work, a greater distribution of ink than has been heretofore obtained is rendered necessary. With this object in view we have constructed an Inking Machine, to be attached to a hand press, to be driven by *steam* power. It has two rollers to pass over the form, one or more times to each impression. The strongest inks may be used. The distribution is perfect, and uninterrupted by the operation of the press. The Machine is not at all liable to get out of order.

Sizes and Prices.

Folio Post	$275.00.
Medium	300.00.
Super Royal	325.00.
No. 1	350.00.
" 2	375.00.
" 3	400.00.
" 4	425.00.
Counter Shaft, Hangers and Pulleys, extra	30.00.
Additional Fountain, Folio Post	32.50.
" " Medium	35.00.
" " Super Royal	40.00.
" " Nos. 1, 2, 3 & 4 ....from $45 to	75.00.
Boxing and Carting....from	6.00.

Terms of Payment—Cash at manufactory in New-York.



Patent Hand Press Self-Inking Machine.

By attaching this machine to a Washington or Smith hand press the pressman inks the form by the ordinary operation of the press, and gives at the same time a more perfect distribution. It is much more simple in its construction, regular in its movements, and easy to put up than any machine heretofore in use for the purpose.

Sizes and Prices.

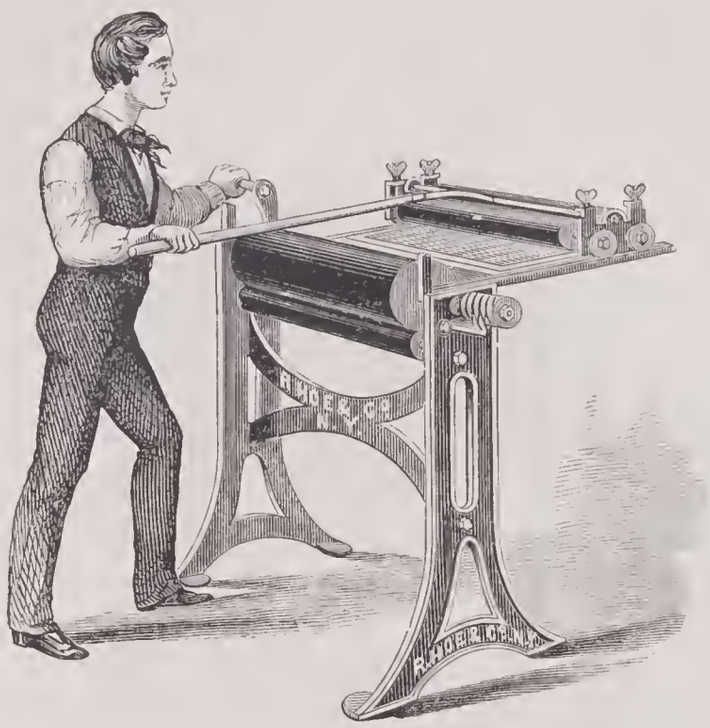
Foolscap	$135.00.
Medium	145.00.
Super Royal	155.00.
Nos. 1 & 2	170.00.
" 3 & 4	185.00.
Boxing and Carting	5.00.

Take from the box in a careful manner; clean each part and lay by itself. Be careful not to derange any part already connected.

Bolt together the two side frames and cross pieces, as marked; then put the piece marked R. Hoe & Co. across the top, and screw fast. Put the cloth roller in its place, hold it back against the springs while the three inch distributing roller is put in and screwed fast. The back shaft, with levers attached, should next be put in its place, the caps screwed down, and the weights put on by bearing down the ends of the levers that the chains are hooked to, until the opposite end is sufficiently raised; slide them on as marked, make fast, and lower them carefully on to the stud screwed to the side frame for that purpose. Then hook the chains to the levers as marked, connect the opposite end of the leather cord to the shaft on the distributing roller, by putting it through the hole from the side marked with a point until it comes to a piece of twine that is tied around it; then turn the set screw in the end of the shaft and make it fast. The roller carriage should next be attached to the lever on the weight shaft and placed upon its bearings, and the sliding rod, that works through a projection of the same piece, put in its place; this prevents the carriage from running out. The fountain may now be put into its place. Put the counter balance on, so that the two dots shall come together, and make it fast by turning the set screw in the lever.

The machine must be placed behind the press as near to the bed as possible, while allowing the bed to pass without touching; two wrought iron bearers are to be laid, one across each end of the bed, exactly the proper distance apart, so as to receive the wheels of the roller carriage. When it is required to work with an old press, notches must be cut through the corner irons on the side towards the machine, to receive the bearers; but when the press and inker are ordered together the corner irons are fitted for the bearers, which have only to be placed in the notches. The machine must be leveled up so that the two projecting pieces, on which the wheels of the roller carriage rest, shall be exactly on the same level as the bearers, and stand parallel with the bed, so that the wheels of the roller carriage will run true on the bearers.

Terms of Payment—Cash at manufactory in New-York.



Improved Inking Apparatus for the Hand Press.

The large distributing cylinder, which is turned by a crank, vibrates. There are two rollers to ink the form, unless the order be for one roller only, moving in a carriage with four wheels, those on one end being plain, those on the other having a projecting flange. Two wrought iron rails lie on the bed, outside of the chase; one of them grooved to receive the projecting flanges on one pair of the wheels, the other level on the surface. Projecting from the frame are two short rails, on which the wheel rests while the rollers are receiving ink from the cylinder. The machine must be set up behind the press so that the short rails on it agree exactly. both in height and width, with the rails on the bed of the press when it is run out. The journal boxes of the inking rollers have adjusting screws, so that they may bear more or less on the type, as circumstances require.

Sizes and Prices.

With Vibrating Cylinder, Railway and Carriage to work one ink roller.

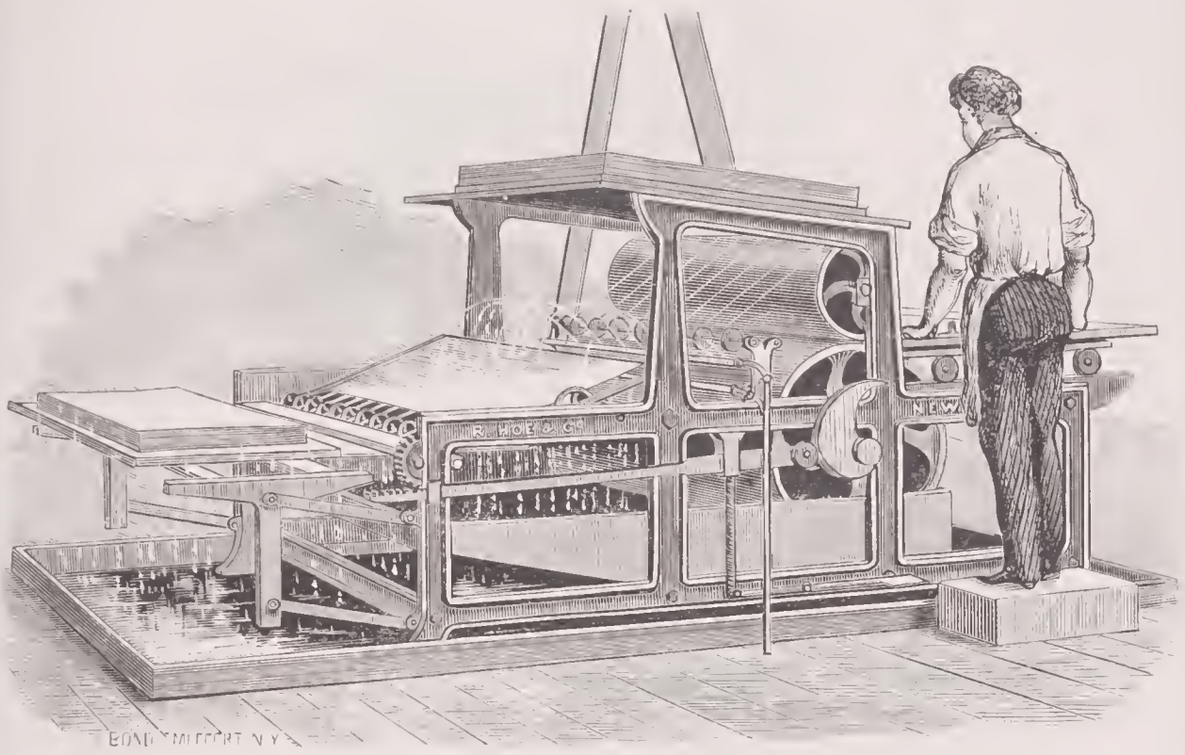
Foolscap	$50.00.
Medium	55.00.
Super Royal	60 00.
Nos. 1 & 2	65.00.
" 3 & 4	70.00.
" 5 & 6	75.00.

With Vibrating Cylinder, Railway and Carriage to work two ink rollers.

Foolscap	$60.00.
Medium	65.00.
Super Royal	70.00.
Nos. 1 & 2	75.00.
" 3 & 4	80.00.
" 5 & 6	85.00.

Boxing and Carting, $4.00.

Terms of Payment—Cash at manufactory in New-York.



Paper-Wetting Machine.

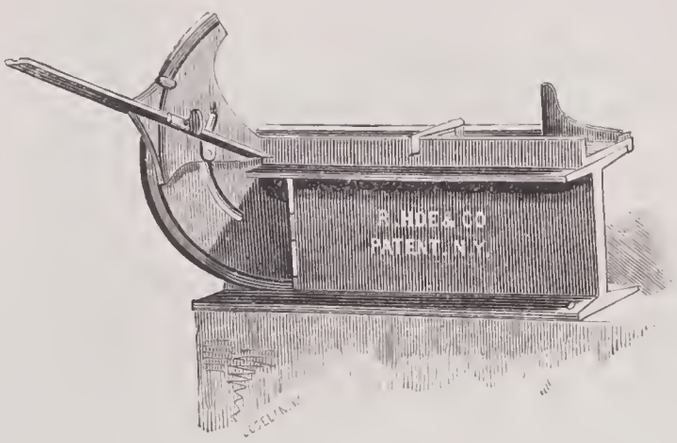
The bundle of paper is placed on the bank, and fed in qnires, either open or folded, to guides on the feed-table. At the proper time the table advances and enters the paper between two cylinders covered with felt, the lower one of which runs in a trough of water. As the paper issues from these cylinders, it passes between a top and bottom sprinkler, by which additional water can be pnt on, and the quantity can be regnlated at pleasnre. The paper is then conveyed by cords to a sheet-flyer, which lays it on a table snspended on springs. These springs are quickly adjustable to suit the weight of the paper, so that the table falls as the weight increases, and thns keeps the top of the pile always at the same height.

Sizes and Prices.

No. 1 will wet paper	36	inches	long	$700.00
" 2 "	48	"		800.00
" 3 "	60	"		900.00

The above inclndes Counter-shaft, Hangers and Pulleys, Boxing and Shipping or Carting and Pntting-np.

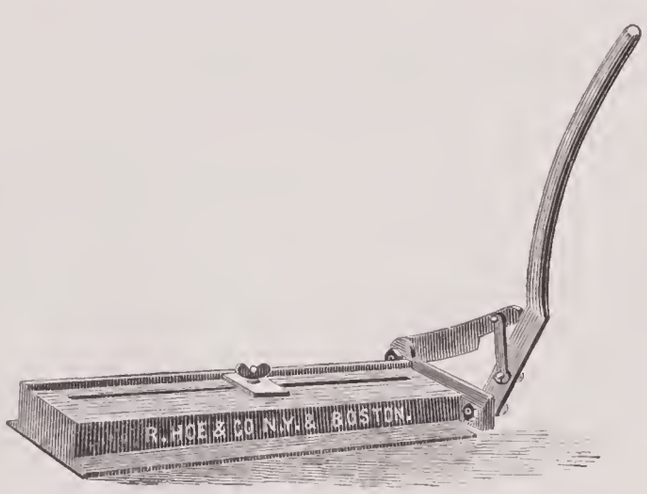
Terms of Payment—Cash at manufactory in New-York.



Patent Mitering Machine.

This Machine will miter Brass or Metal Rule to any desired angle. It is simple in its construction, easily adjusted, and will do the work with the greatest facility and neatness. The miter is made by a sharp knife, which leaves the cut edge smooth and accurate.

Price, $18.



Lead and Rule Cutter.

By the combination of levers shown in the annexed engraving, great power is secured, and the operator is enabled to cut the thickest Leads or Brass Rule with little exertion.

Size: Bed, 15 inches long; Shears, 3 inches.

Price, $15.

Cast-Iron Case Stands.

These Stands are light, handsome and strong; they can be taken to pieces as readily as wooden ones, and are more durable.

Sizes and Prices.

Double, with racks	$25.00
Double, without racks	18.00
Single	12.00

Terms of Payment—Cash at manufactory in New-York.

Cabinets.

The above cut represents our new style of Cabinets. They are not only substantial but quite ornamental. No well organized office should be without them.

Prices.

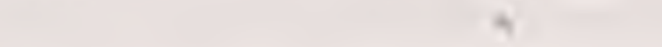
Cabinets with	10	pairs	full size cases	$55.00
"	" 10	"	two-thirds size cases	45.00
"	" 8	"	two-thirds size cases	35.00
"	" 6	"	two-thirds size cases	26.00
"	" 15	"	half cases	27.75
"	" 10	"	half cases	18.50
"	" 5	"	half cases	10.50

Other sizes made to order.

If ordered of Black Walnut, $5 extra.

Terms of Payment—Cash at manufactory in New-York.

Brass Rule.

No. 1		12 cts.
" 2		12 "
" 31		15 "
" 3		18 "
" 32		24 "
" 33		30 "
" 5		36 "
" 34		42 "
" 6		48 "
" 35		54 "
" 7		60 "
" 36		68 "
" 37		75 "
" 38		24 "
" 39		30 "
" 40		36 "
" 41		42 "
" 42		48 "
" 43		54 "
" 44		60 "
" 45		68 "
" 46		75 "

Brass Rule.

No. 47		18 cts.
" 48		21 "
" 8		24 "
" 9		30 "
" 49		30 "
" 29		36 "
" 23		42 "
" 30		48 "
" 50		54 "
" 51		60 "
" 52		68 "
" 53		75 "
" 24		21 "
" 10		24 "
" 11		30 "
" 12		36 "
" 13		42 "
" 14		48 "
" 54		54 "
" 25		60 "
" 55		68 "
" 56		75 "

Brass Rule.

No. 57		12 cts.
" 58		12 "
" 59		12 "
" 22		12 "
" 60		12 "
" 61		12 "
" 62		14 "
" 63		12 "
" 17		12 "
" 18		18 "
" 64		18 "
" 20		27 "
" 65		27 "
" 19		23 "
" 66		23 "
" 67		23 "
" 68		23 "
" 69		23 "
" 21		27 "
" 70		27 "
" 26		42 "
" 15		54 "
" 16		60 "

Brass Rule.

No. 71		23 cts.
" 72		33 "
" 73		33 "
" 74		36 "
" 75		36 "
" 76		33 "
" 77		33 "
" 78		33 "
" 79		33 "
" 80		33 "
" 81		33 "
" 82		36 "
" 83		36 "
" 84		36 "
" 85		33 "
" 86		33 "
" 87		33 "
" 88		33 "
" 89		33 "
" 90		36 "
" 91		36 "
" 92		33 "

Brass Dashes.

CUT TO SUIT THE COLUMN.

9 CENTS EACH

No. 19

No. 20

15 CENTS

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

20 CENTS.

21

22

23

24

25

26

27

28

29

30

31

32

33

34

25 CENTS.

35

36

37

38

39

40

41

42

43

44

45

46

Labor-Saving Rule.

Composed of 12 Pieces.

Composed
of
10 Pieces.

Composed of 12 Pieces.

Composed
of
10 Pieces.

Composed of 12 Pieces.

Composed
of
10 Pieces.

Mitred
on
R. Hoe & Co's
$ 18
Machine.

Labor-Saving Rule Case.

THE careful printer will realize great advantages in the use of these Labor-Saving Rules. For tables of varying dimensions in book-work they are excellently adapted, and the facility with which they may be put together in lengths differing only an em, recommends them for all jobbing purposes in which rapidity of execution is essential. The shorter pieces of the Single Rules, from 1 to 10, comprising 19 different sizes, will be found an economical substitute for the ordinary metal space-rules in the execution of mathematical or arithmetical works.

PRICES.

Sets of the Single Rule, assorted lengths.....per lb. $3.00
" " " Parallel or Double Rule, assorted lengths..... " 2.63
Sets of the Dotted Rule, assorted lengths.....per lb. $3.00
Additional pieces of any length up to 50 ems, will be furnished to order.

SPECIMENS

OF

SOLID AND MORTISED

TYPE METAL

FLOURISHES

Imported by

R. Hoe & Co.

NEW-YORK

AND

BOSTON.

Made by C. Derriey, Paris,

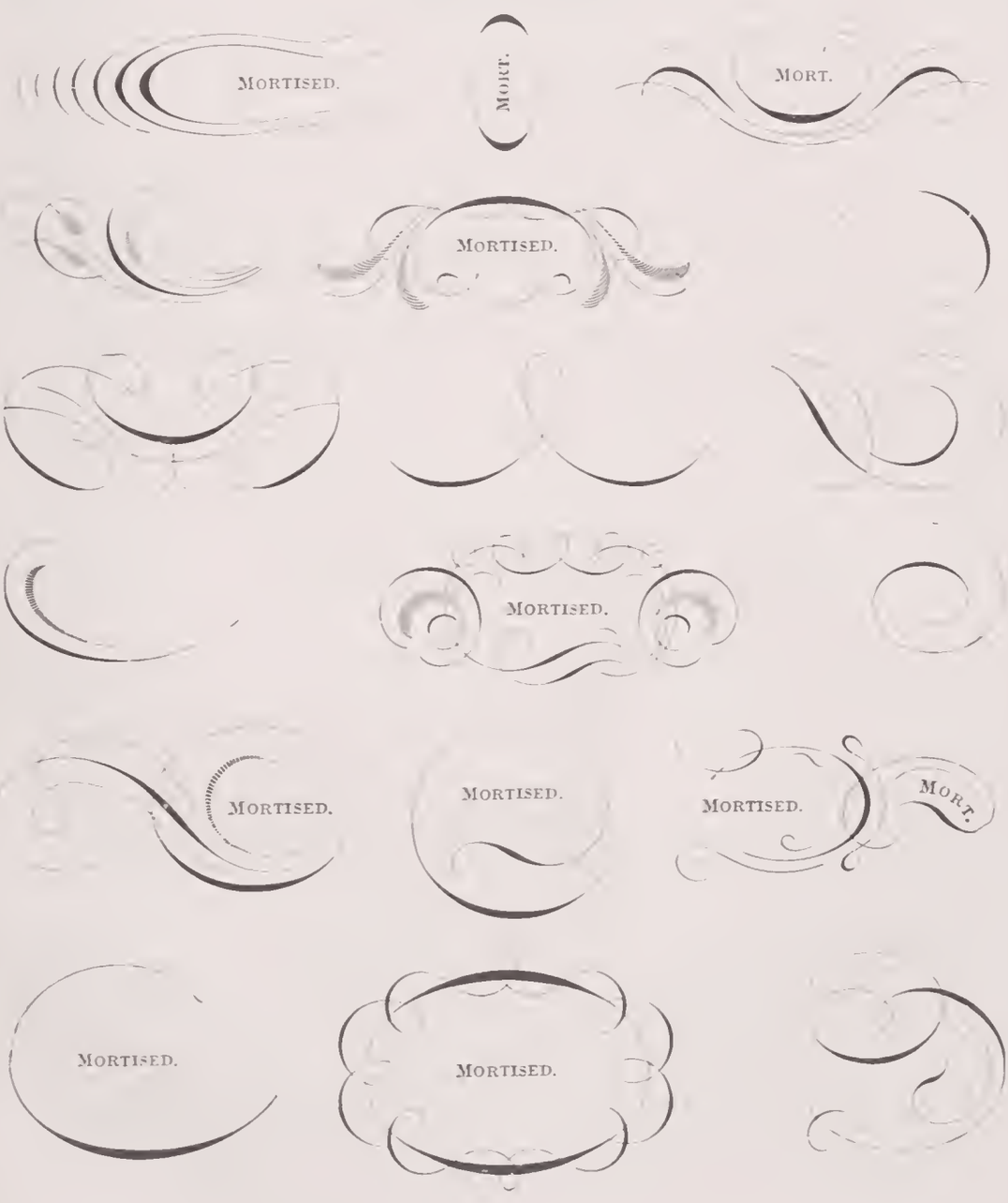
From very hard type metal.

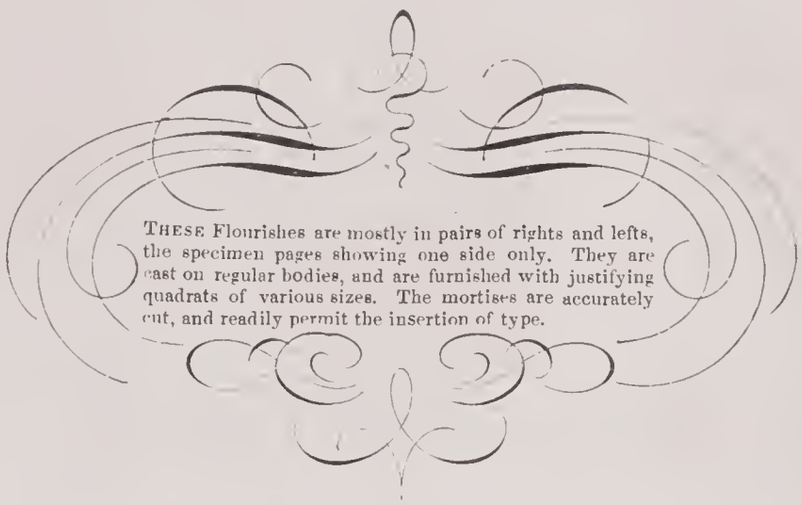
PRICE

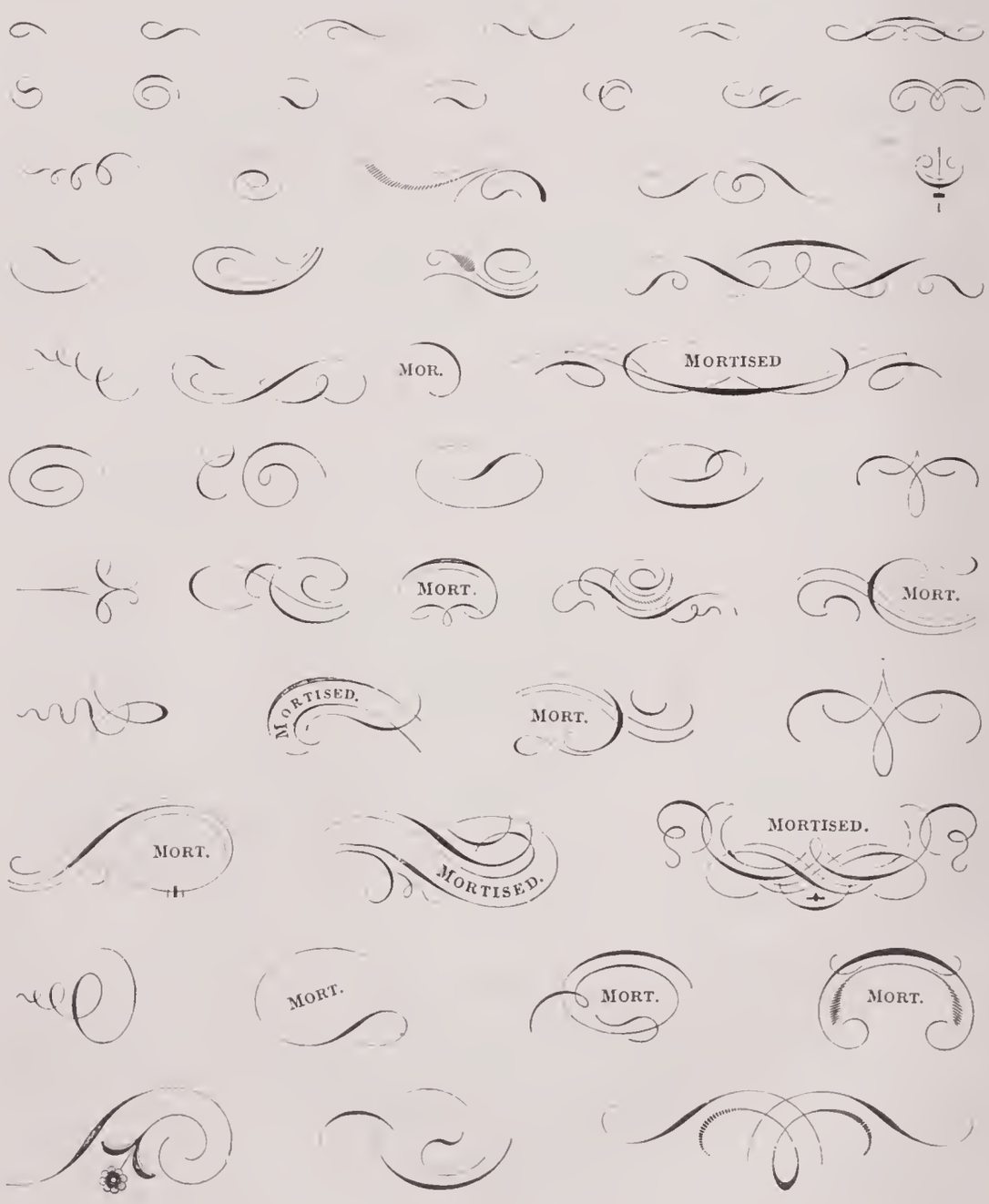
$30 & $60 per set.

FLOURISHES

ARE a most valuable aid to ornamental typography. They will be found useful for letter and note headings, cards, circulars and title pages, enabling the careful compositor and skillful pressman to produce an effect but little inferior to copperplate printing.




These Flourishes are mostly in pairs of rights and lefts, the specimen pages showing one side only. They are cast on regular bodies, and are furnished with justifying quadrats of various sizes. The mortises are accurately cut, and readily permit the insertion of type.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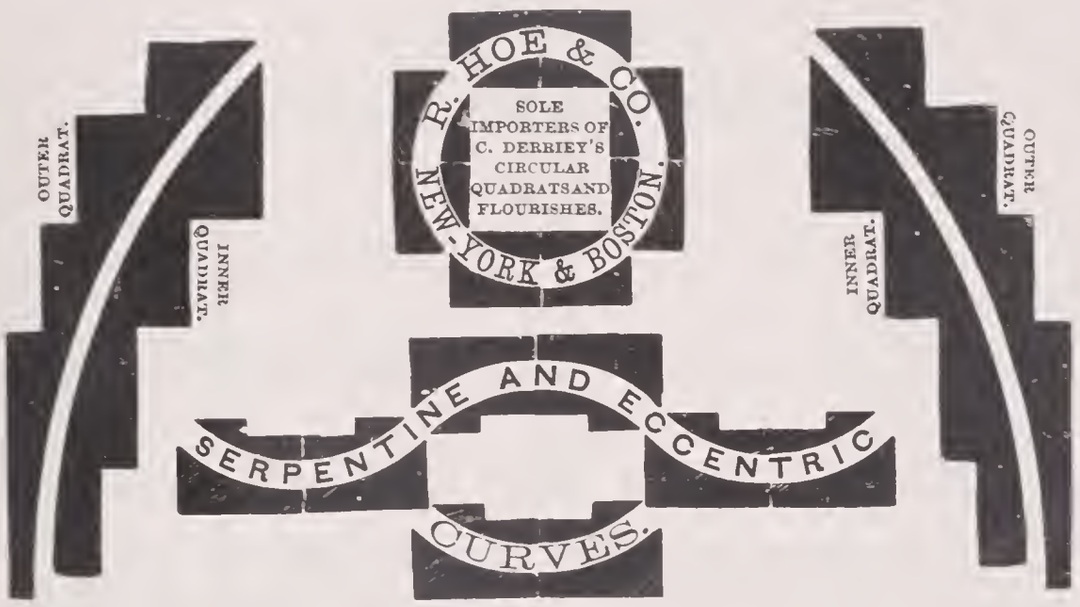


Circular Quadrats.

ARE the neatest, cheapest, and most trustworthy material for printing curved lines. The above impressions taken from them will show their construction. They are made from type metal of unusual hardness and solidity, carefully finished, and are of various sizes, so as to form circles or parts of circles from 1 to 24 inches in diameter. Each piece is marked with a distinct number, and is exactly one-eighth of a full circle, so that when combined with similar pieces, quarter, half, three-quarter and full circles can be constructed. By reversing the combination of some of the pieces, serpentine and eccentric curves may be made of any length or depth.

There are two kinds: *Inner Quadrats*, with convex surface, and *Outer Quadrats* with concave surface, as may be seen above. The curved line is produced by placing the convex and concave surfaces parallel to each other, so that when locked up they hold firmly the type inserted between them. The other sides of the quadrats are flat and right-angled, to allow a close introduction of type, and an easy justification with common quadrats.

DIRECTIONS FOR COMPOSING CIRCULAR QUADRATS for the ordinary size of one-fourth circle.

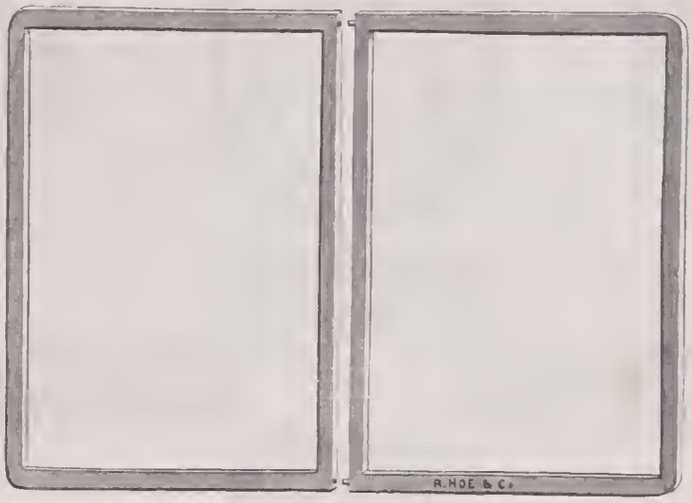
Select two outer quadrats, each marked with the same number and of the length required. Join the smaller ends and justify the extremities carefully with ordinary quadrats. Set the line of type in the hollow of the curve, but without justification; then insert two inner quadrats, of the same number, of smaller size than the outer quadrats. The size of the inner quadrats will depend upon the size of the type. A line of canon will require smaller inner quadrats than would be needed for a line of pica, and *vice versa*. As the one increases the other diminishes. An ordinary clock dial will afford a good illustration. The space between the numerals X and I is one-fourth of a circle. The curved line described around the foot of these numerals is much less than the curve at the top. If the size of the numerals from X to I is decreased, the inner curve will be greater; if it is increased, it will be less. This will explain why the inner quadrats should be of less size than the outer, and how the curve of the inner quadrat can be made perfectly parallel with the curve of the outer quadrat. When it is so made the quadrats bind the type firmly in every part, and the line of type may be justified at the ends.

As the sizes of type vary with different foundries, it will often be found that the inner quadrat of the nearest suitable size will not meet the type in every part. This difficulty may be obviated by introducing slips of card *of the same length as the line of type*, thus increasing the distance between the quadrats until the curved surfaces are perfectly parallel with each other. The line of type should not be justified until they are parallel. When the inner and outer quadrats are thus adapted to each other, they will not only bind the type firmly, but will also present a perfectly flat and square surface on the other side. Unless they are parallel on the inner sides and flat and square on the outer sides, the justification is not good; and the remedy must be found in changing the size of the inner circle, or in increasing the distance between the curved lines by the use of larger type, or by paper or card board. When thus composed the type will be perfectly tight and secure, and the curved line strictly accurate.

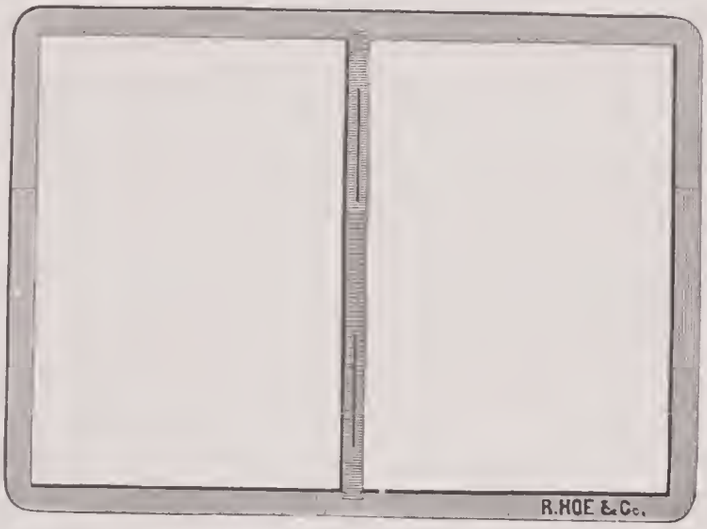
As these quadrats are perfect segments of a large circle, they cannot be increased or diminished without destroying the truth of the curve. If the thin ends are pieced out with common quadrats, good justification will be rendered impossible; if they are shortened by cutting off, they are ruined. Bits of lead or short pieces of card between the curved surfaces are also wrong; they destroy that exact parallelism which is necessary for the security of the type. Accurate justification of the outer extremities of the quadrats is also indispensable.

Price per set, $17.50.

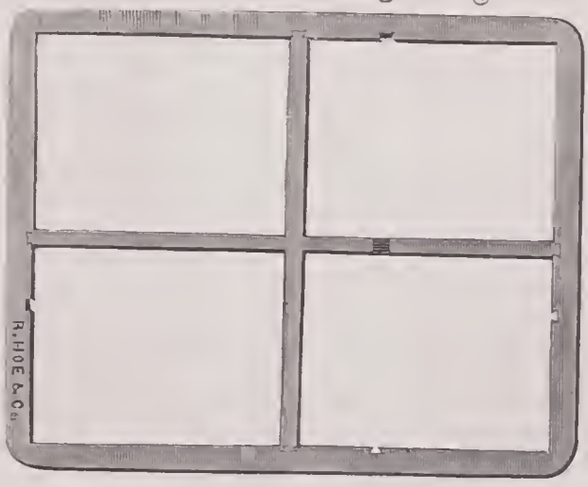
Two Half Chases.



News Chase.



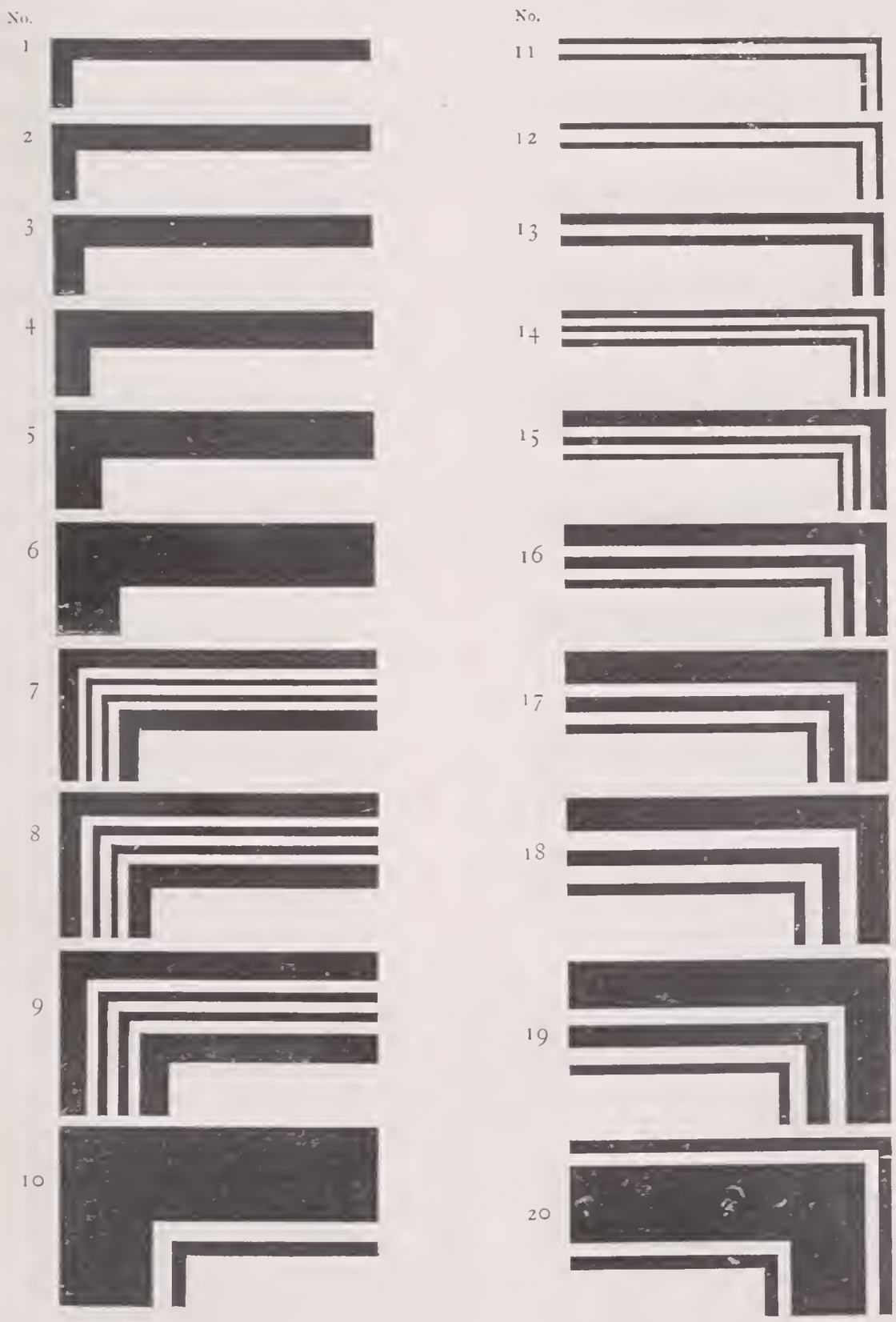
Book or Shifting Bar Chase.



In ordering Chases, give the outside dimensions as accurately as possible, and state what kind of Chase is wanted. For Prices, see page 5.

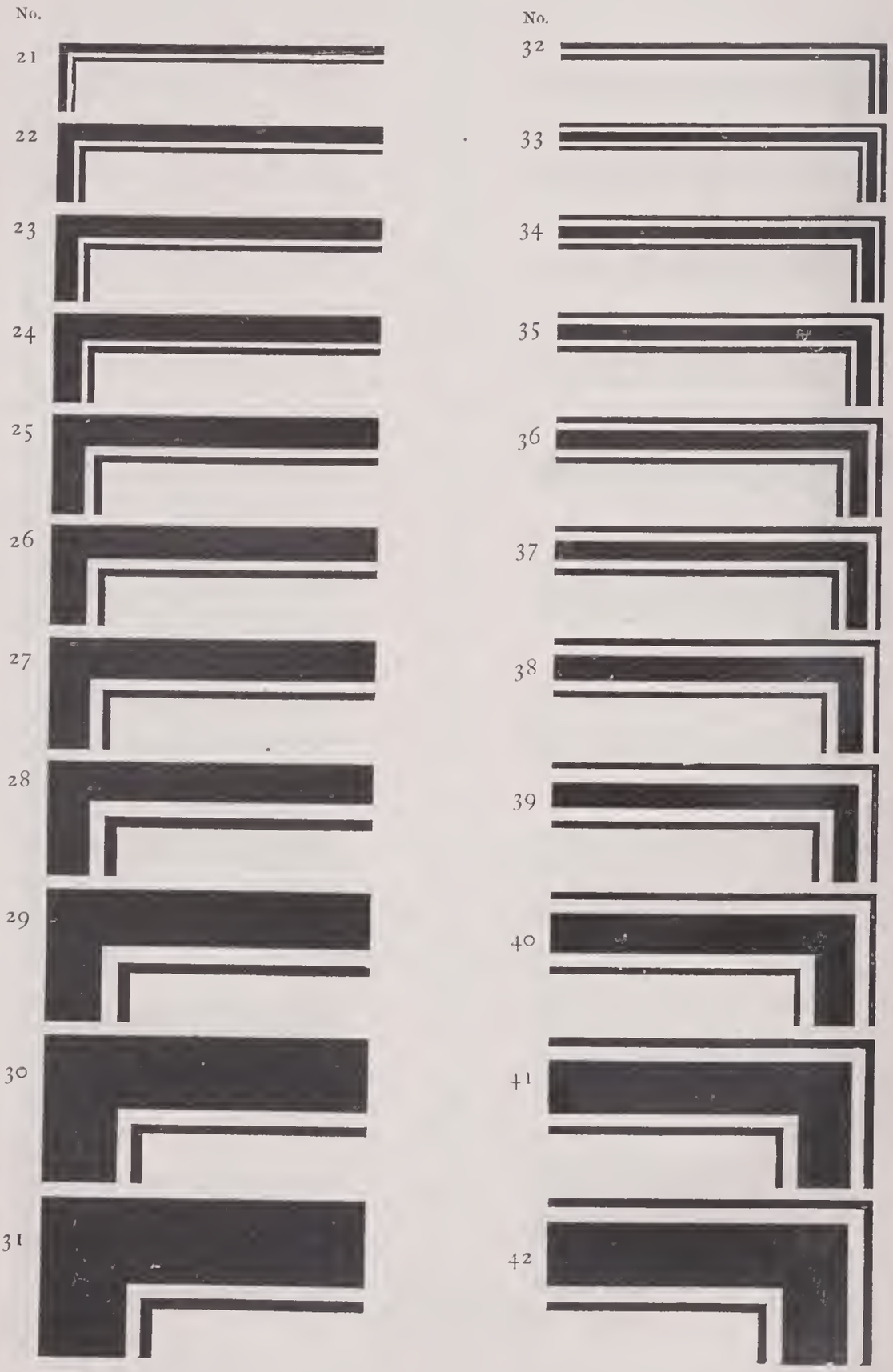
Wood Rule.

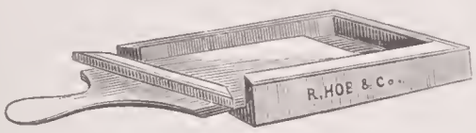
Fifteen Cents per yard, made to any pattern.



Wood Rule.

Fifteen cents per yard, made to any pattern.





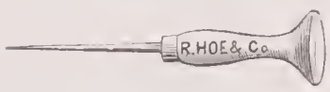
Slice Galley.

Spring Bodkin.

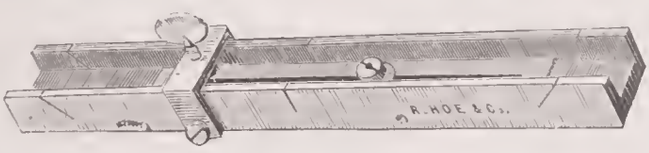
Single Brass Galley.

Proof Brush.

Iron Shooting Stick.

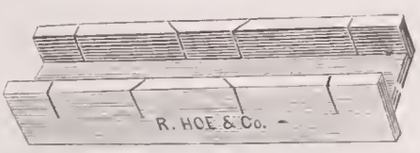


Bodkin.

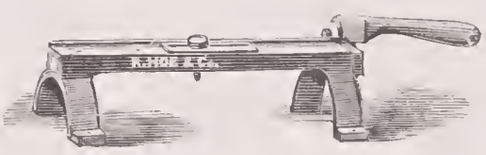


Iron Mitre Box.

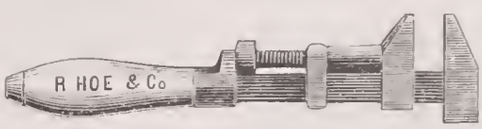
Planer.



Wood Mitre Box.

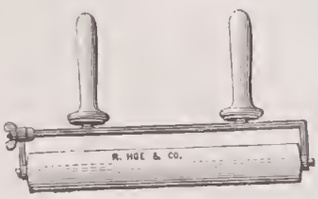


Lead Cutter.



Screw Wrench.

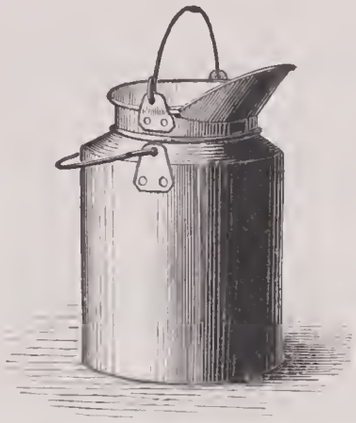
Composing Stick.



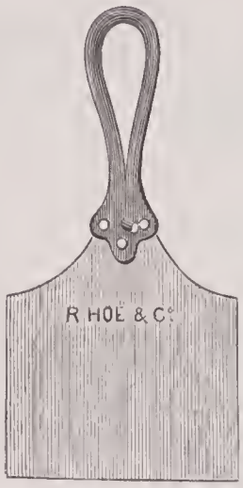
Job Roller.

Proof Roller.

Iron Bound Mallet.

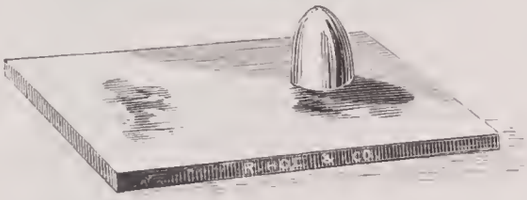


Composition Kettle.

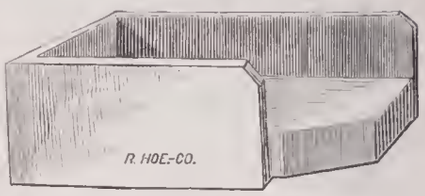


Ink Slice.

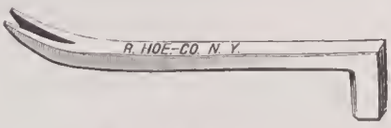
Inking Ball.



Ink Muller and Stone.



Ink Block.



Sheep's Foot.

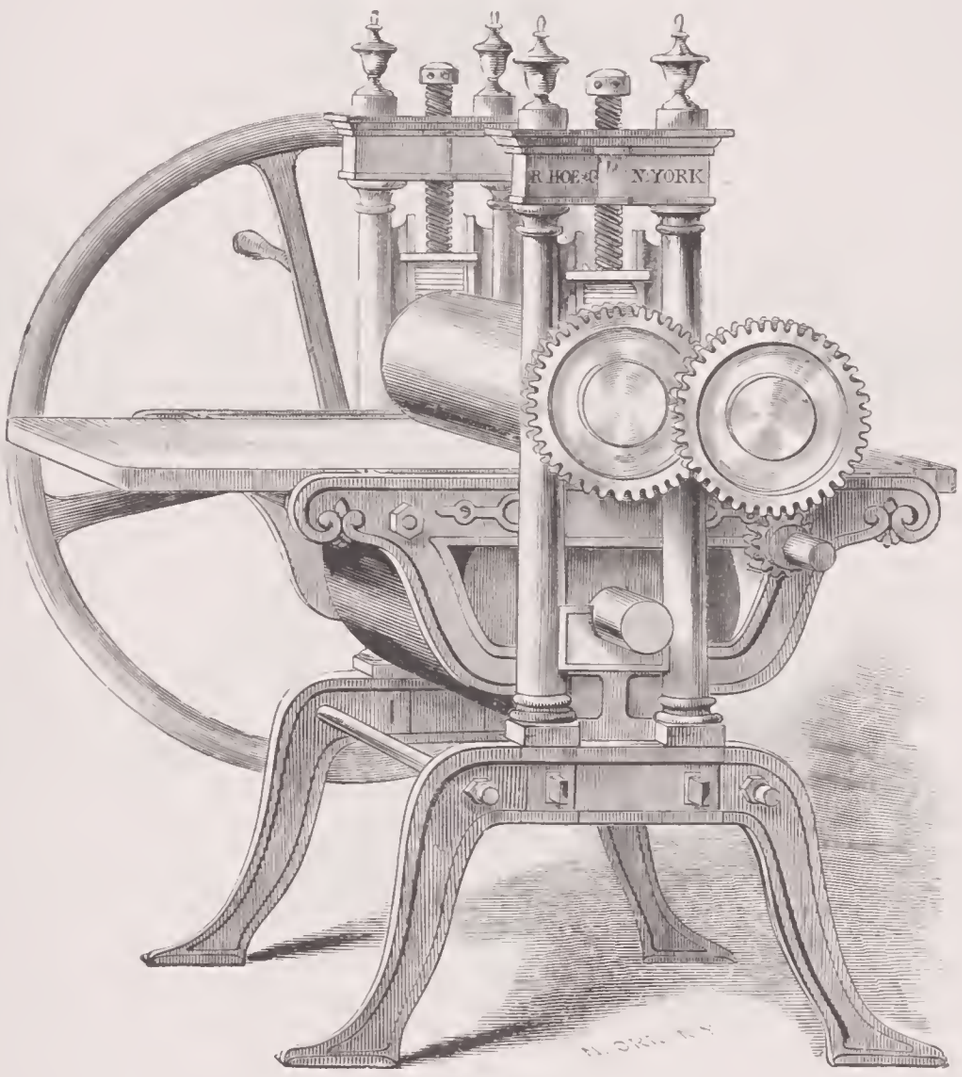
Ratchet.

Stereotype Block.

Ink Brayer.

Rye Brush.

Bed (Turtle) of Rotary Printing Machine.



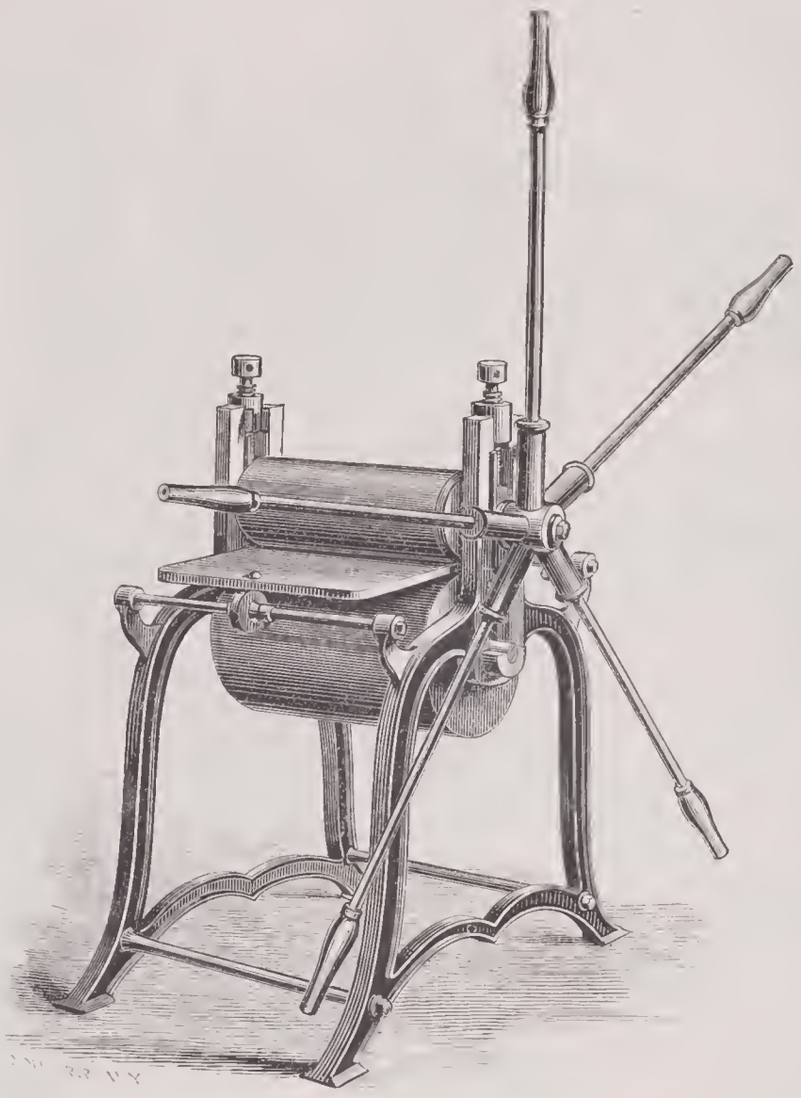
Geared Copper-plate Press.

This is a heavy and powerful Press, of a new style, capable of printing the largest sized plates. The frame is strengthened by internal wrought iron tension rods. The Press is double geared, and the bed is guided by side anti-friction rollers. It has a fly-wheel and crank for working by hand, or it may be run by steam power.

Sizes and Prices.

Bed 34×60	$1,250.00
" 34×66	1,350.00

Terms of Payment—Cash at manufactory in New-York.



Iron Copper-plate Press.

The side frames, cylinders and bed are made of cast iron; the cylinders are turned, and the bed planed perfectly true. The shafts through the cylinders, the braces, arms and screws are of wrought iron; the bearings of composition.

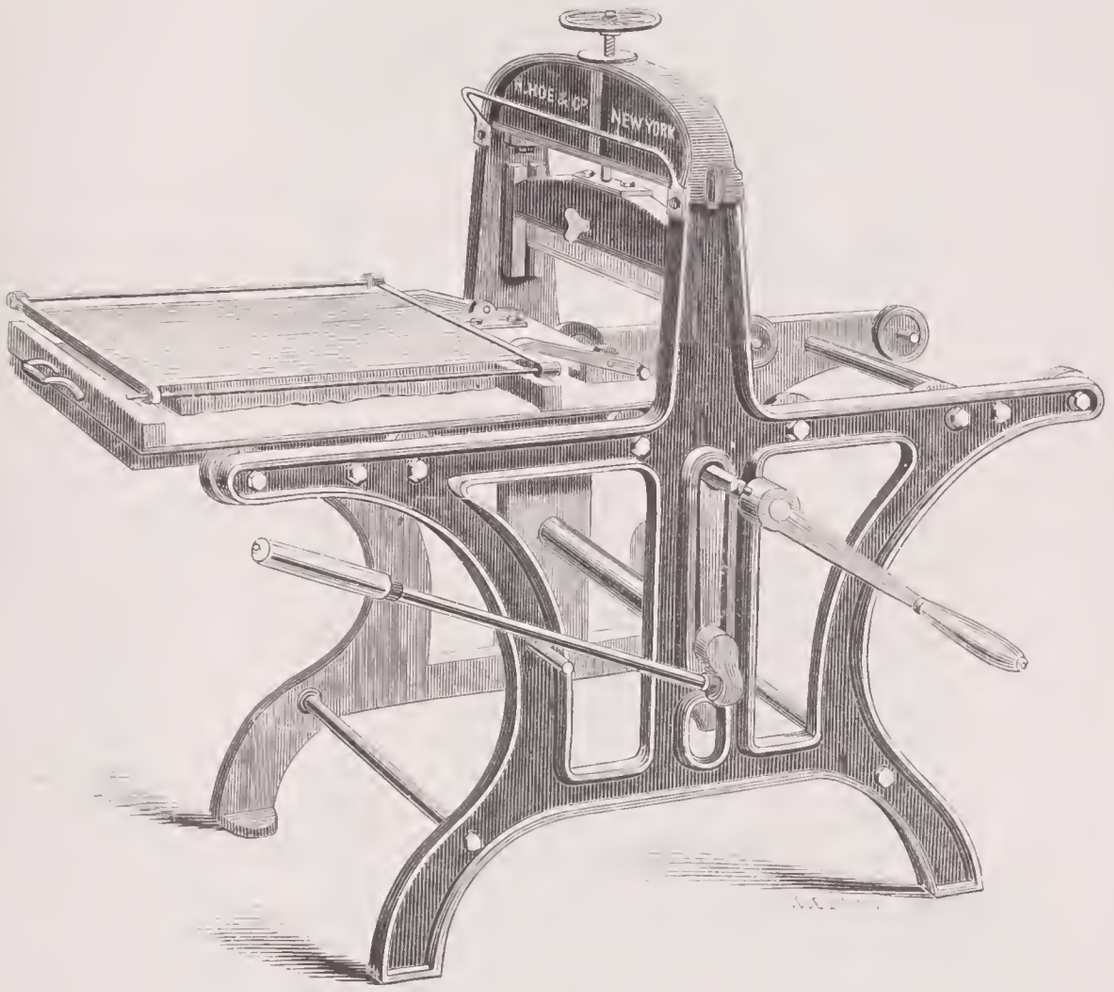
Every material connected with Copper-plate Printing supplied.

See Estimate on page 136.

Sizes and Prices.

Bed 10 inches wide	$150.00.	Bed 24 inches wide	$325.00.
" 12 " "	175.00.	" 26 " "	370.00.
" 15 " "	200.00.	" 28 " "	415.00.
" 18 " "	240.00.	" 30 " "	460.00.
" 21 " "	280.00.		

Terms of Payment—Cash at manufactory in New-York.



New Style Lithographic Press.

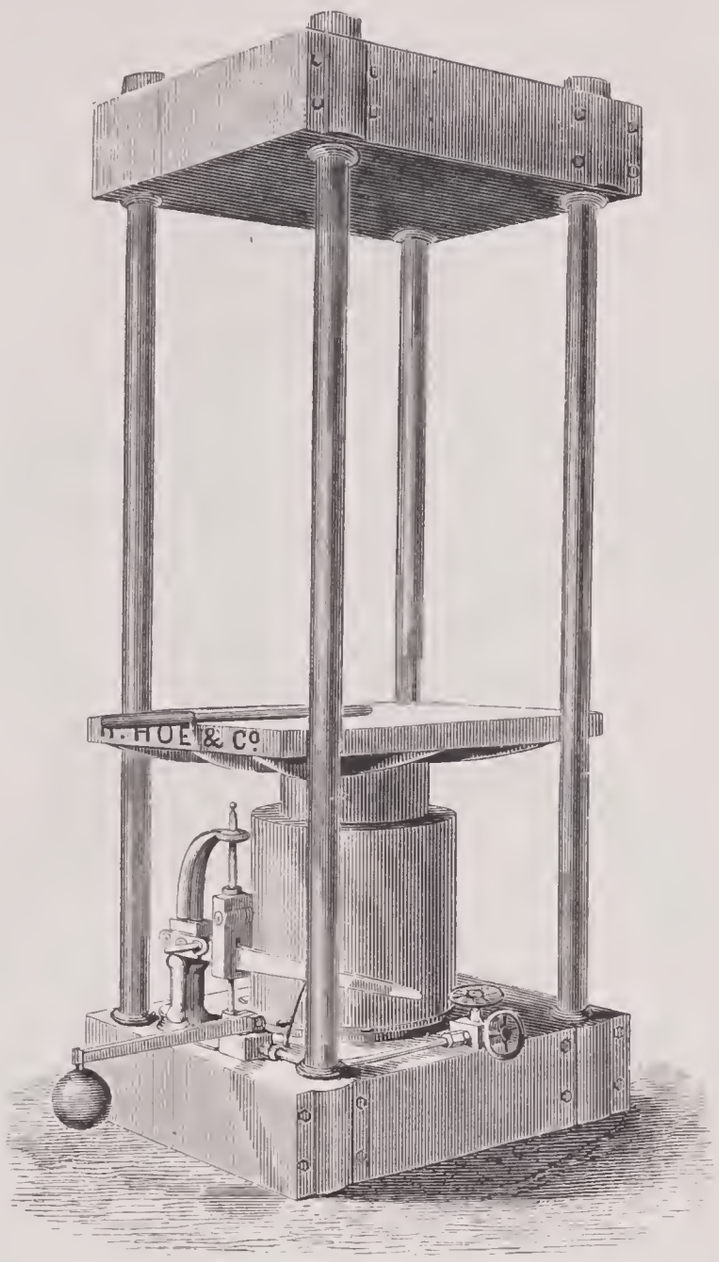
It is made of the best materials, is strong, simple, convenient, and works with great ease. The roller under the bed is geared in presses of the larger size, but is so arranged that it may be used with or without the gearing. The bed is made sufficiently long always to cover the roller, thus protecting it from dirt or grease from the scraper, and at the same time having a more even movement.

Sizes and Prices.

	Size of Bed.	Size of Stone.	Price.
No. 1	20 × 26	18 × 24	$200.00.
" 2	24 × 32	22 × 30	250.00.
" 3	28 × 40	26 × 37	300.00.
" 4	32 × 46	30 × 43	350.00.
" 5	36 × 52	34 × 48	425.00.
" 6	42 × 60	39 × 56	500.00.

Boxing and Carting, from $10.

Terms of Payment—Cash at manufactory in New-York.



Hydraulic Press.

The cylinder is of solid wrought iron, and lined with copper. The rods are fagoted. The pump may be placed on the base of the press as shown in the cut, or on a separate cistern.

The cylinder should be wiped out from time to time, and the cistern frequently cleansed and supplied with pure water.

Sizes and Prices.

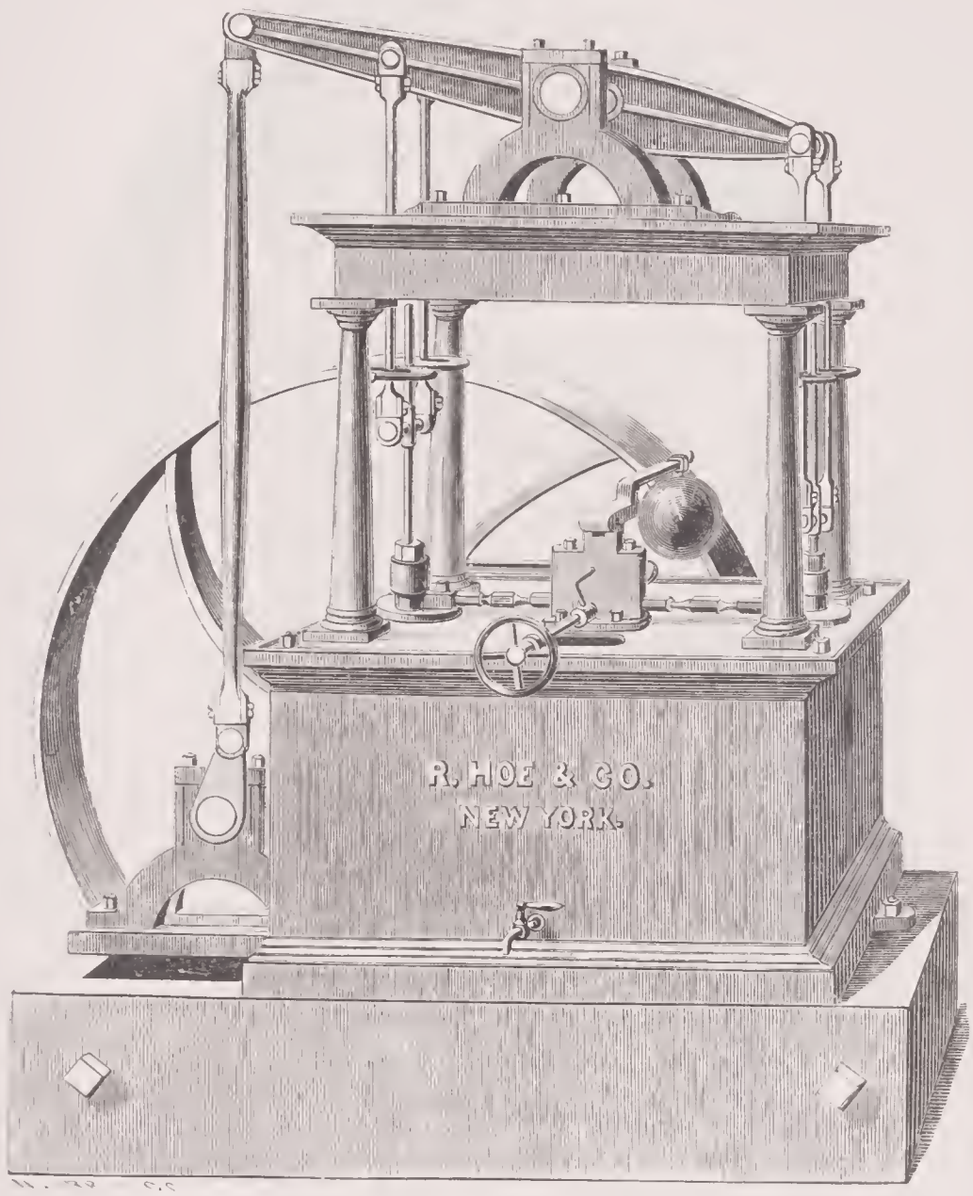
Diameter of Ram.	Size of Platen.	Greatest Space between Head and Platen.	Length of Rods.	Pressure obtained.	Price.
6 inch.	25 × 37 in.	48 inch.	8 ft. 4 in.	140 tons.	$1,000
8 "	26 × 40 "	54 "	9 " 2 "	250 "	1,300
10 "	28 × 44 "	66 "	10 " 8 "	390 "	1,800
12 "	32 × 46 "	72 "	11 " 8 "	560 "	2,250

Other sizes made to order.

PUMPS.—Single Pump, on base of Press (as shown in cut)..... $160.00
Single Pump, on Separate Cistern..... 240.00
Double Pump, on Separate Cistern..... 400.00

Power may be applied to these Pumps by means of Counter-Shaft and Connecting Rod at an expense of about $100.

TERMS OF PAYMENT—Cash at manufactory in New-York.



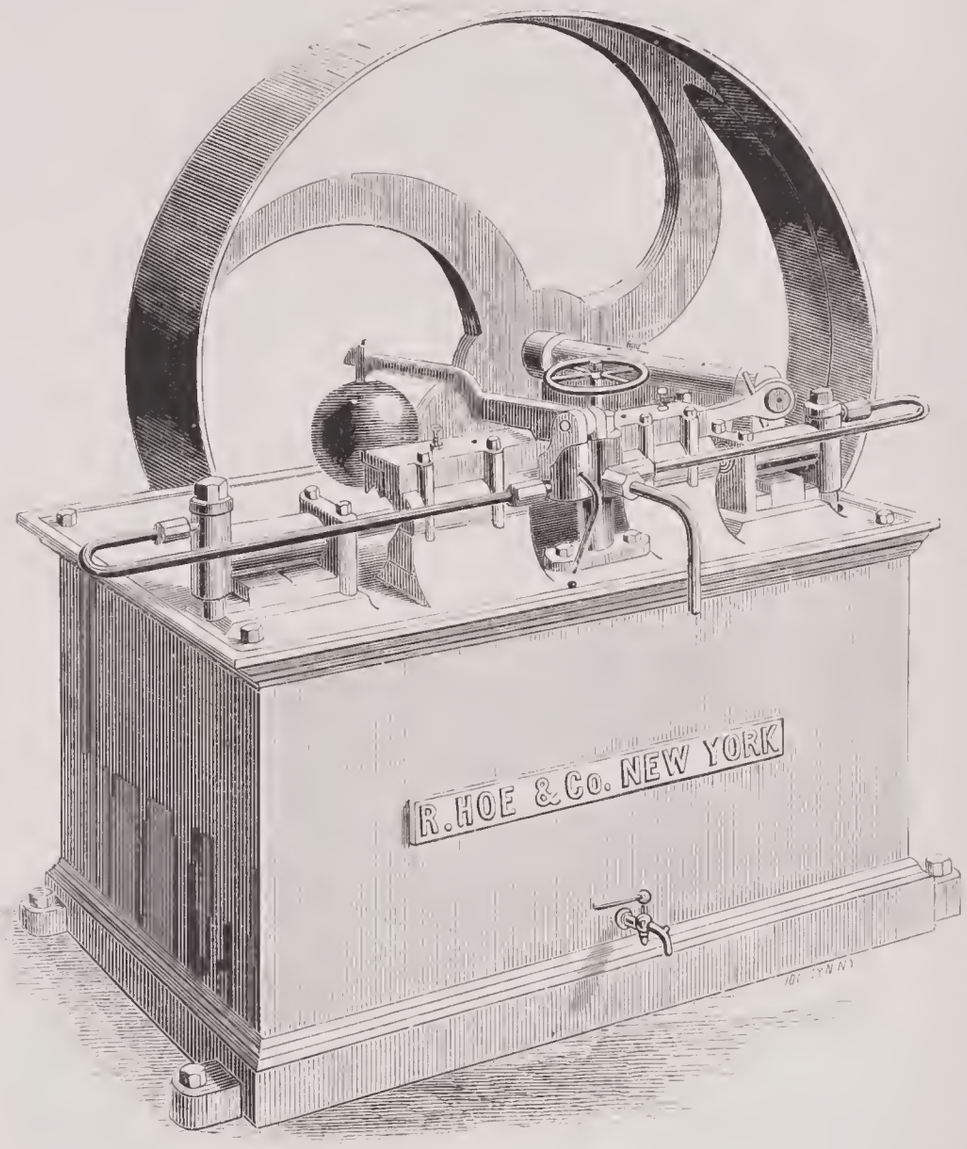
Double Vertical Steam Pump.

This handsome and durable Pump is sufficiently explained by the cut. It is finished in the most thorough manner. The joints are made without packings. Any number of presses may be operated by it by means of the proper connections. Running at its usual speed of fifty revolutions per minute, it will raise the platen of a twelve-inch hydraulic press at the rate of one inch and a half per minute. The cistern should be frequently cleansed and supplied with pure water.

Space occupied on floor, 4 feet × 6 feet 8 inches. Capacity of Cistern, 55 gallons. Height, 6 feet. Weight, 2,400 pounds.

Price $1,000.

Terms of Payment—Cash at manufactory in New-York.



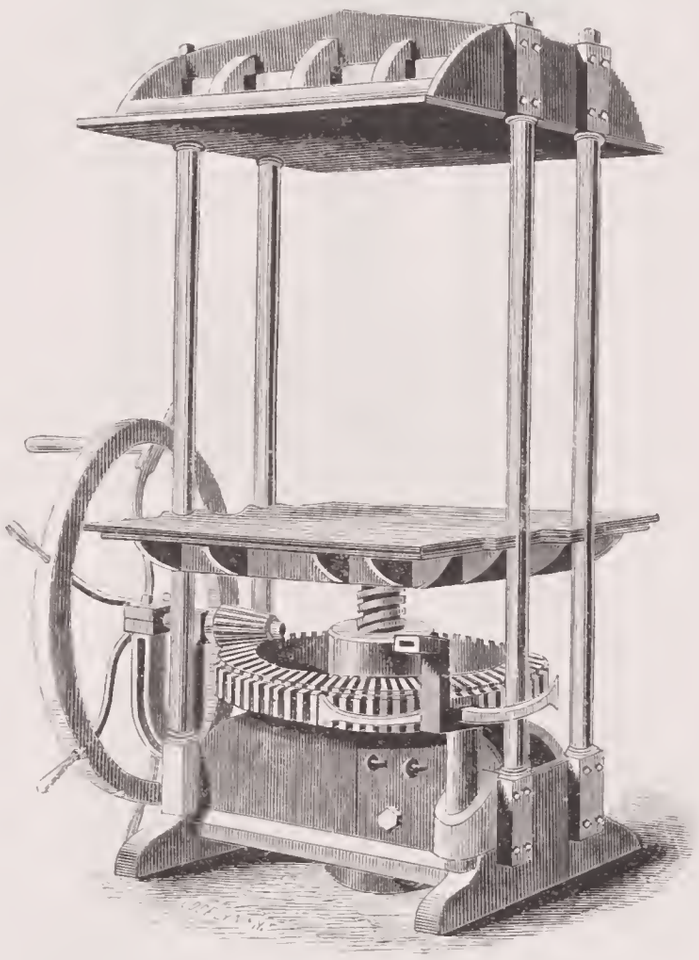
Double Horizontal Steam Pump.

This is a Pump of very simple and direct action. The cylinders are placed in line on the cover of the water cistern, and the plungers are fixed one in each end of a sliding-head placed between the cylinders, and moving in an adjustable guide-block. By using an improved kind of joint, no packing is required in making the various connections. Any number of presses may be worked by this pump. Running at its usual speed of fifty revolutions per minute, it will raise the ram of a twelve-inch hydraulic press at the rate of one inch and a half per minute. The cistern should be frequently cleansed and supplied with pure water.

Room occupied on the floor, 3 feet × 5 feet. Weight, 1,400 pounds. Capacity of Cistern, 50 gallons.

Price, $800.

Terms of Payment—Cash at manufactory in New-York.



Double-Geared Iron Standing Press.

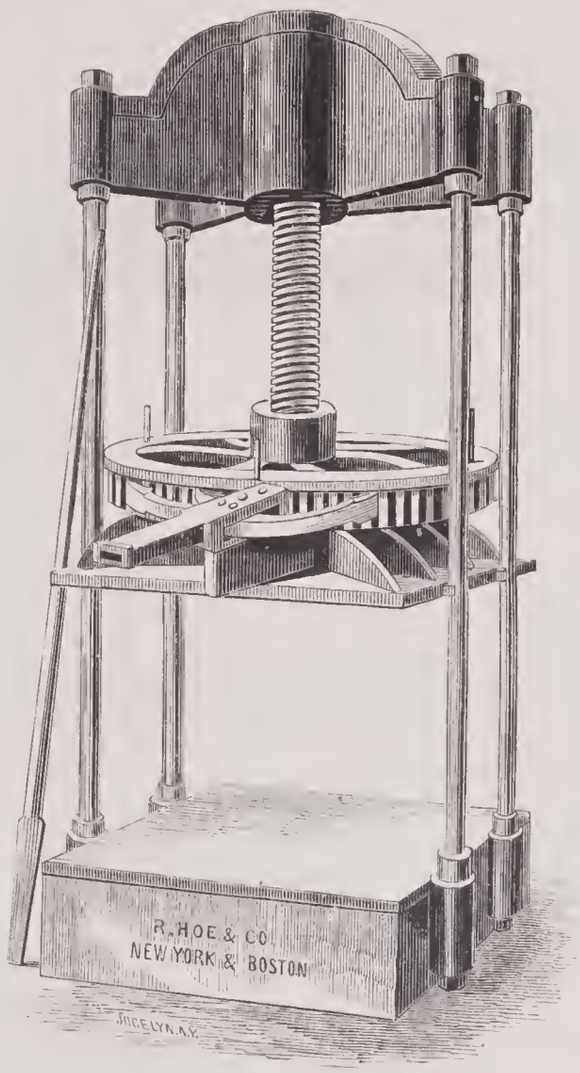
This is a simple yet powerful Press. When filled, it is first run up by the fly-wheel crank; next, as the pressure increases, by the handles in the rim of the wheel; and, finally, by a lever operating the pawls which work into the large tooth-wheel, and which are so arranged as to work the wheel with the backward as well as the forward motion of the lever.

Sizes and Prices.

No.	Diameter of Screw.	Size of Platen.	Greatest Space between Head and Platen.	Space occupied on floor.	Price.
1	5¼ inches	32 × 43½ inches	53 inches	42 × 54 inches	$775
2	5½ "	32 × 43½ "	53 "	42 × 54 "	825

Boxing and Carting, extra.

Terms of Payment—Cash at manufactory in Boston.



Double Pawl Iron Standing Press.

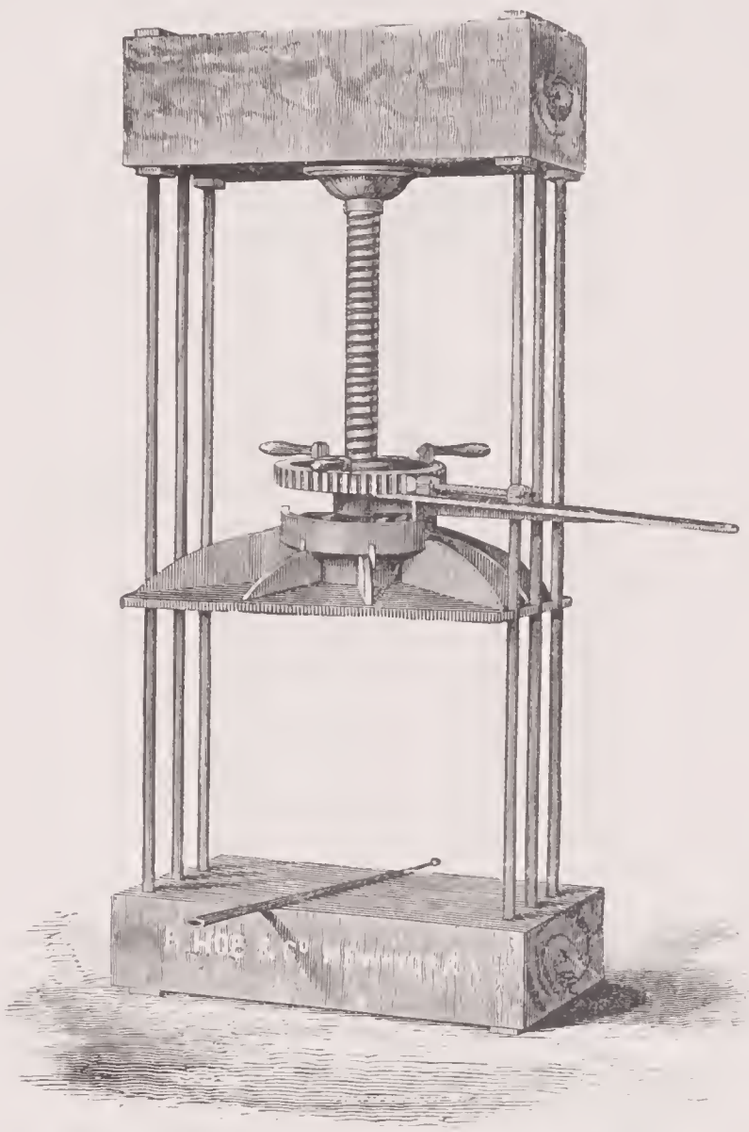
This Press is all iron. The bed and platen are planed true, and the pawls are so arranged as to work the wheel with the backward as well as the forward motion of the lever.

Sizes and Prices.

No.	Diameter of Screw.	Size of Platen.	Price.
1	3½ inches	22½ × 29	$ 360
2	4¼ "	22½ × 29	400
3	6 "	33 × 46	800
4	7 "	33 × 46	1,000

The No. 3 and No. 4 are of immense strength. A ten feet lever may be used with safety, with the No. 3; and a twelve or fifteen feet lever with the No. 4, giving, with three or four men, from 200 to 400 tons pressure.

Terms of Payment—Cash at manufactory in Boston.



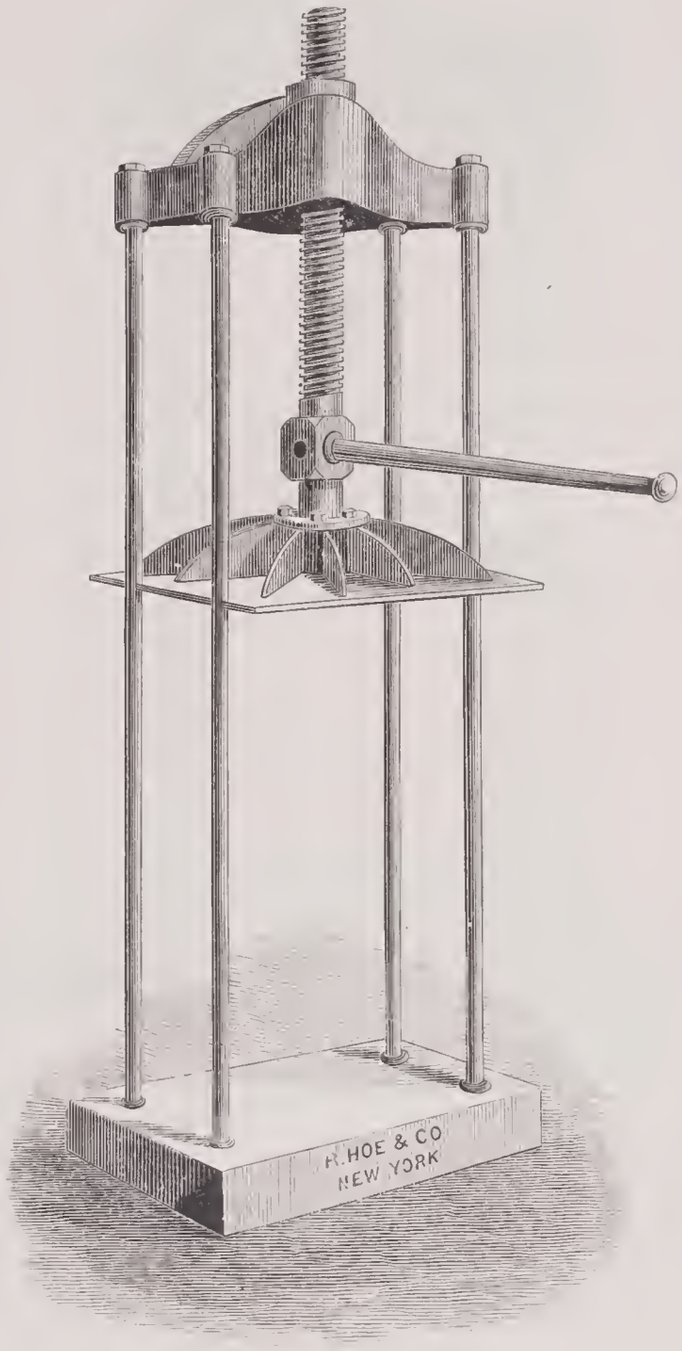
Screw Standing Press, with White-oak Bed and Head.

The box is of composition; the platen planed true. The timber used is of the best quality, well seasoned, and secured by iron plates, bolts and nuts.

Sizes and Prices.

No.	Diameter of Screw.	Size of Platen.	Price.
1	2½ inches	17 × 28	$160
2	3 "	18 × 30	200
3	3½ "	20 × 32½	240
4	4 "	21½ × 33	280
6	5 "	32 × 47½	675
7	5½ "	36 × 54	750

Terms of Payment—Cash at manufactory in New-York.



Iron Standing Press.

This Press is all iron; it has wrought iron screw, with hardened steel point. The bed and platen are planed true.

Diameter of Screw, 2½ inches; Platen, 15 × 19 inches; Space between Bed and Platen, 48 inches; Height, 7 feet.

Price, $120.

Boxing and Carting, $5.

Other sizes made to order.

Terms of Payment—Cash at manufactory in New-York.

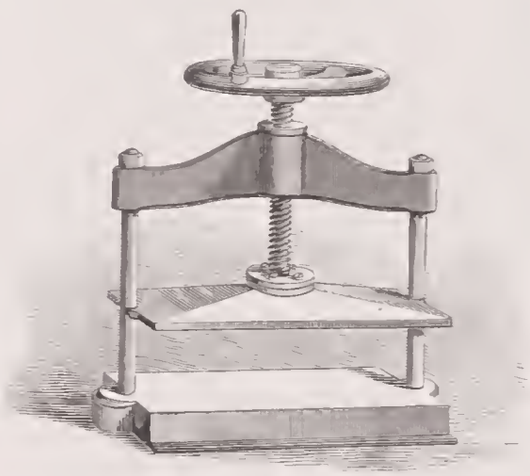


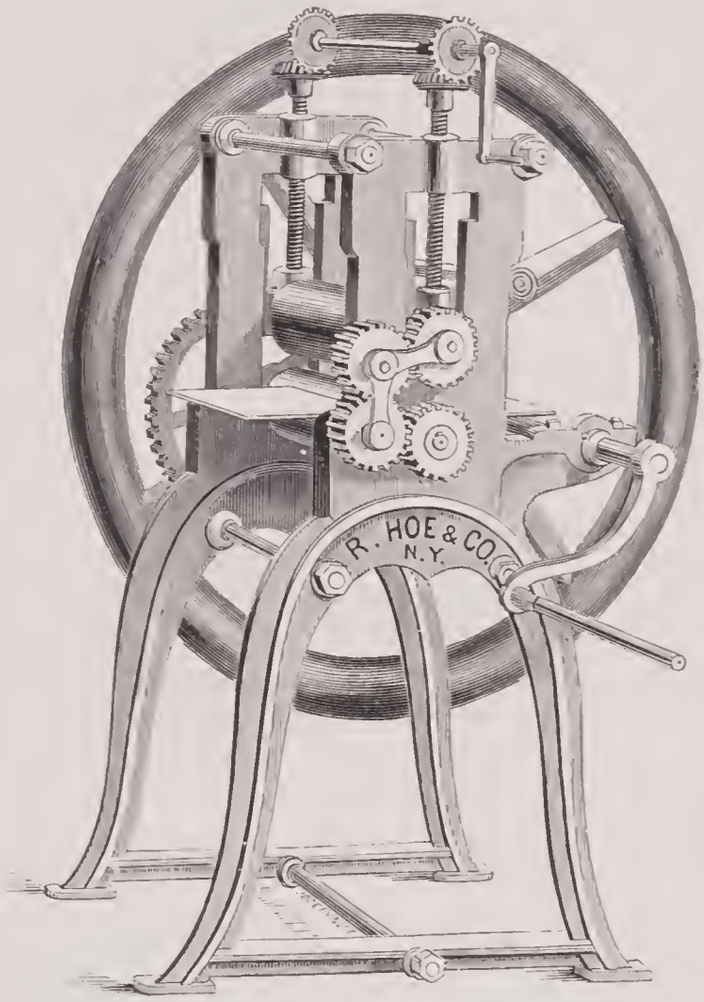
Table Standing Press.

This is a very convenient little Press, and is designed to fill a want which has been long felt. It is screwed to the work-table, and is intended to hold work when glued or pasted, until sufficiently set to lay aside. The platen descends to within one inch of the bed, and has a motion of eight inches. Size of Platen 7½ 15 inches.

Price, $40.

Boxing and Carting, $1.50.

Terms of Payment—Cash at manufactories.



Book-Rolling Machine.

This Machine is used in place of screw and hydraulic presses, for pressing folded sheets. The work is placed on an iron table in front of the rollers, between sheets of iron, pasteboard or leather, and passed through as often as necessary. The adjusting screws are geared together so that the rollers are always parallel to each other. The machine is strongly made, and may be run by either hand or steam power.

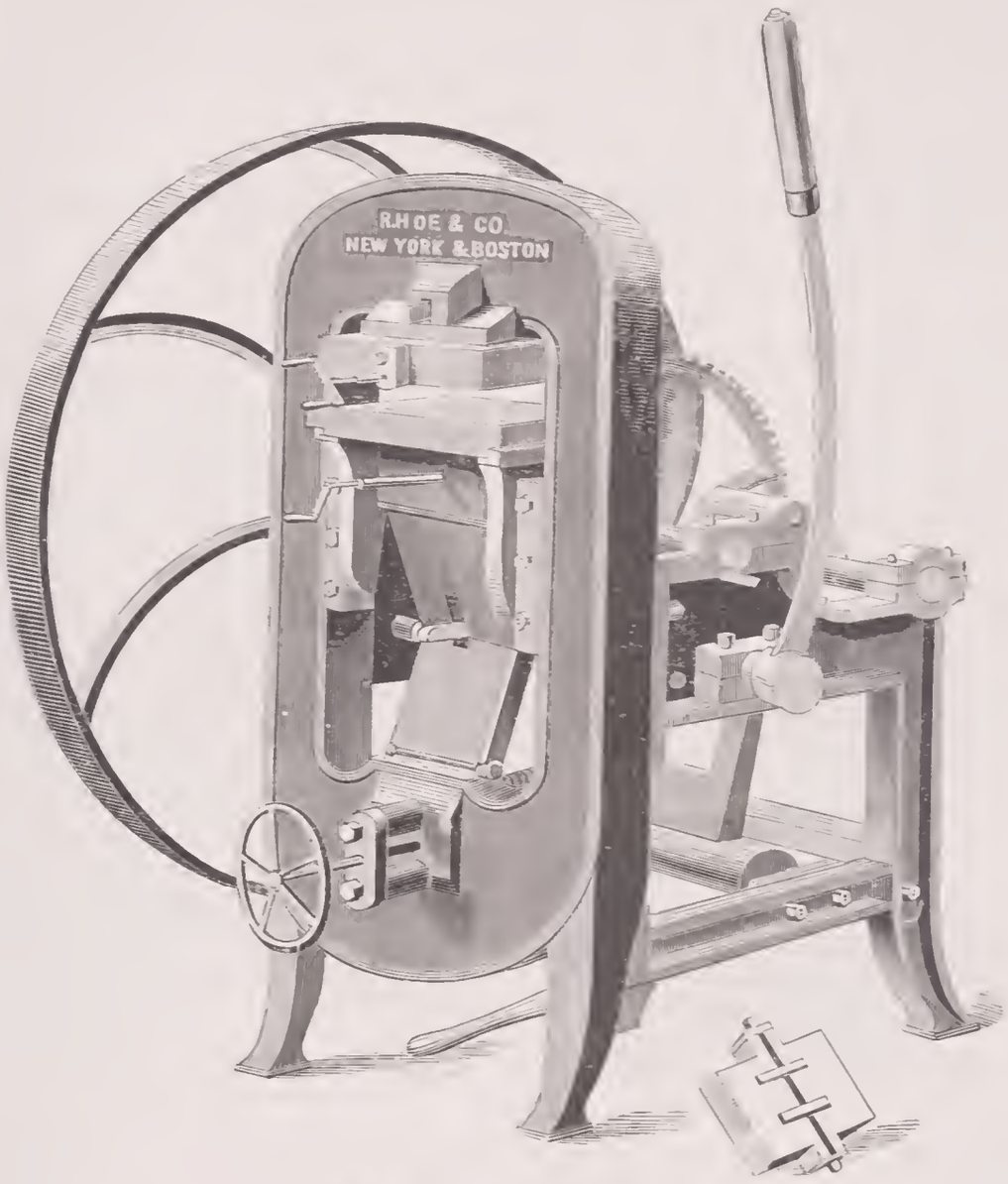
Width of paper rolled, 14 inches. Weight, boxed, 1,500 lbs.

Price, $400.

Boxing and Carting, $10.

Other sizes made to order.

Terms of Payment—Cash at manufactory in New-York.



Embossing Press.

This Machine is massive in structure, simple and efficient in operation. The cut represents the No. 1, which may be advantageously used with the hand lever. The No. 2 is similar in form, but is double-geared, and has a fly-wheel on each end of the driving-shaft. The No. 3 is of immense power, and corresponding strength.

Sizes and Prices.

No.	Size of Head.	Room occupied on the floor.	Weight, boxed.	Price.	Boxing and Carting.
1	15×17 in.	4½×5½ ft.	3,360 lbs.	$1,000.00	$17.50
2	19×24 "	5½×6½ "	8,000 "	1,750.00	25.00
3	24×30 "	6 ×7 "	11,500 "	2,500.00	35.00

Book-Pressing or Smashing Machine.

This machine is on the same plan as the Embossing Press, but is arranged to run slower, and has a wider space between the head and bed. It is used for compressing books, and may be adjusted to all ordinary thicknesses. The prices, weight, &c., are the same as those of the Embossing Press.

Terms of Payment—Cash at manufactory in Boston.

Directions for Putting-up the Embossing Press.

(See preceding page.)

1..Stand the arch in its place and bolt the two side frames to it as marked; put in the cross brace under the large journal bearings.

2..The wedge with screw attached may now be placed in the slot which is in the lower part of the arch.

3..Place the toggle with one end resting on the wedge, and with the letters F on the arch and on the toggle on same side.

4..Secure the bed seat in its place by the guide pieces and screws; then screw the toggle to the bed piece.

5..Place the shaft for the hand lever in its bearings, and fasten to the toggle by the links; pass the stud bolt with screw attached, through the hole in the side frame, and secure it with the nut outside the frame.

6..Put the treadle in its bearings on the lower part of the side frames, with the foot-piece projecting to the front under the arch. It should be attached to the pitman by a small connecting-rod, for the purpose of throwing off the impression when necessary.

7..Put the socket boxes upon the pivot bearings of the vibrator, and bolt them to the side frames, below the main shaft.

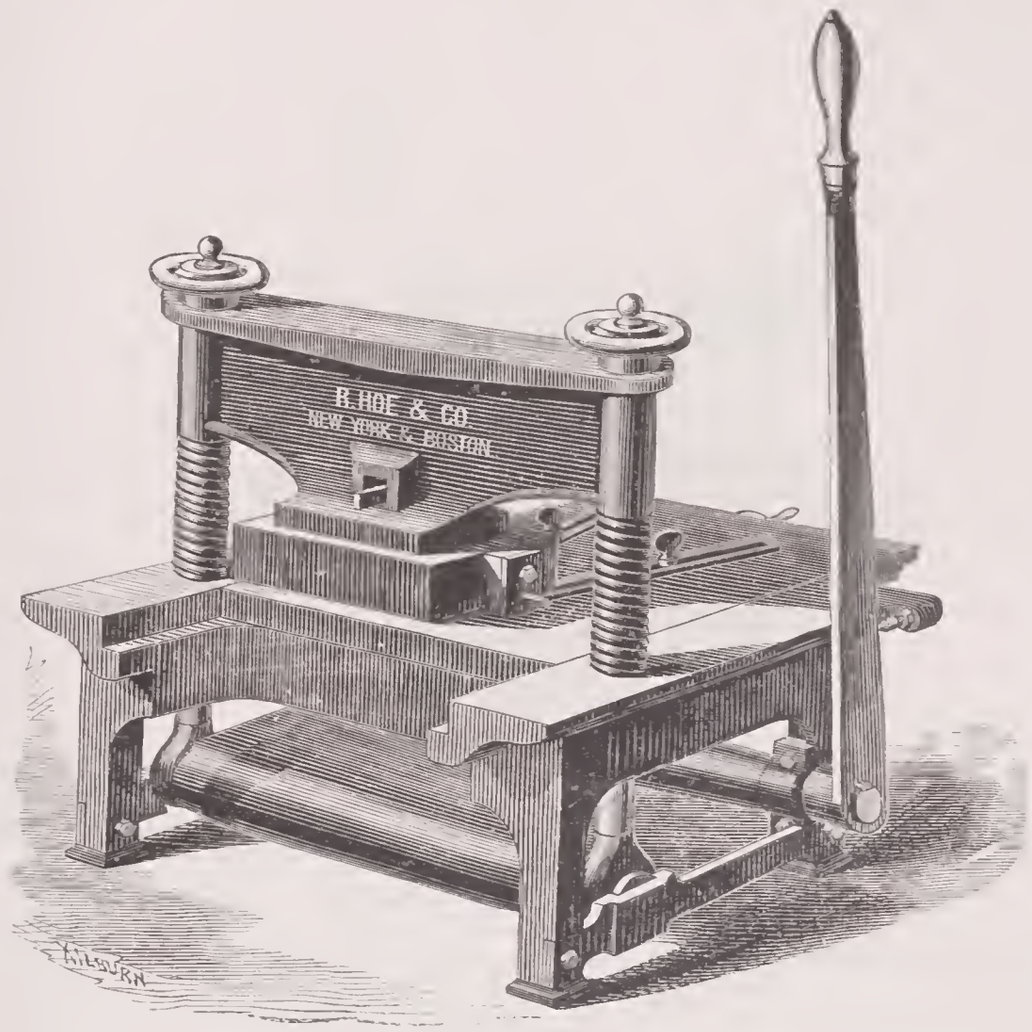
8..Place the pitman with one end resting in a slot in the toggle, and the other attached to the vibrator by a steel pin which passes through the cam rolls, the pitman, and the vibrator.

9..Put in the cam shaft with the large gear wheel on it, and screw the caps down firmly.

10..Put the driving shaft in its bearings with the wheel and pinion geared together as marked and the fly-wheel on the end of the shaft outside the frame.

11..Place the bed on the bed piece and attach by the adjusting screw.

The head is provided with jaws for holding the dies, and is intended to be heated with steam, but may be adapted to gas or iron heaters, if desired; it is held in its place under the arch by a steel key, and can be removed at any time. Steam heads have chambers permeating them throughout, with two apertures, one to admit, the other to discharge the steam, and are tapped to receive the steam pipe. Heads for iron and gas heaters are constructed alike; in one case hot irons being laid in the openings, in the other, jets of flame being directed through them. When in use, the die or form is held up to the head by jaws drawn together by a right and left hand screw passing through the head. The book cover, or whatever is to be embossed, is laid on the bed and adjusted to the form, which is held in the jaws above by the screw and gauges; then the impression may be tried with the hand lever, and regulated by means of the screw attached to the wedge beneath the toggle.



New Embossing and Gilding Press, with Sliding Bed.

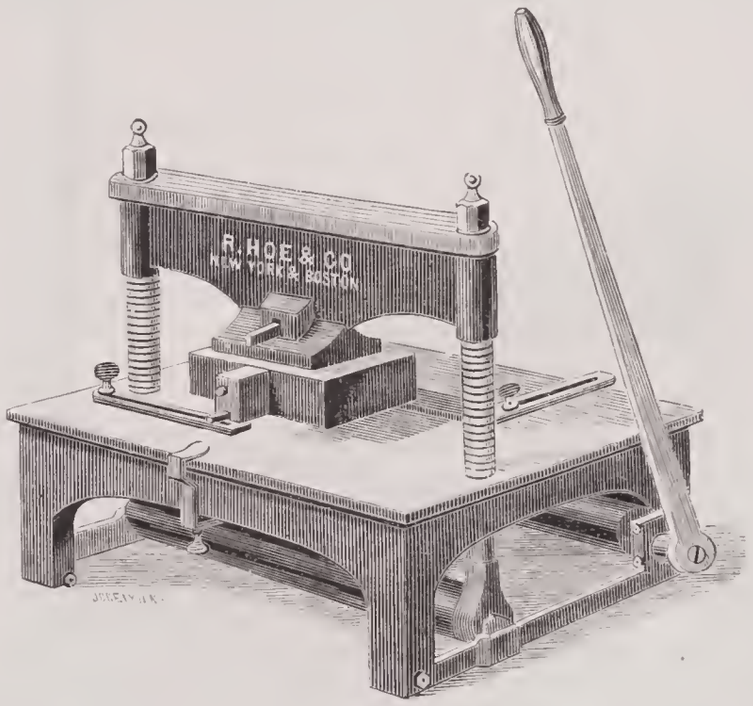
This is a powerful yet compact and simple Press for bookbinders' use. It is adapted especially for job work and is operated by hand, the pressure being produced by compound levers, as in the Washington Hand Printing Press. The head is 7×11 inches inside, and is provided with jaws which are screwed together from the sides; it is intended to be heated by steam, but may be adapted to gas or iron heaters if ordered. The sliding-bed is 20 inches wide, and may be run back by a screw till its front edge is one inch beyond the centre line of the head. Adjustable side and end gauges are furnished by which to set the work. The impression is regulated by the nuts on the top of the press.

Weight, boxed, 970 lbs.

Price, with one head, $350.

Boxing and Carting, $7.50.

Terms of Payment—Cash at manufactory in Boston.



Small Embossing, Stamping and Gilding Press.

This little Press has been long known to the trade. It is similar in principle as well as appearance to the one last described, but is smaller and lighter, with a solid instead of a movable bed. The head is intended to be heated by steam, but may be adapted to gas or iron heaters if desired. The jaws are screwed together from the front. Adjustable side and end guages furnished with each press. Weight boxed, 500 lbs.

Price, with one head 5 × 8 inches inside, $200.

Boxing and Carting, $5.

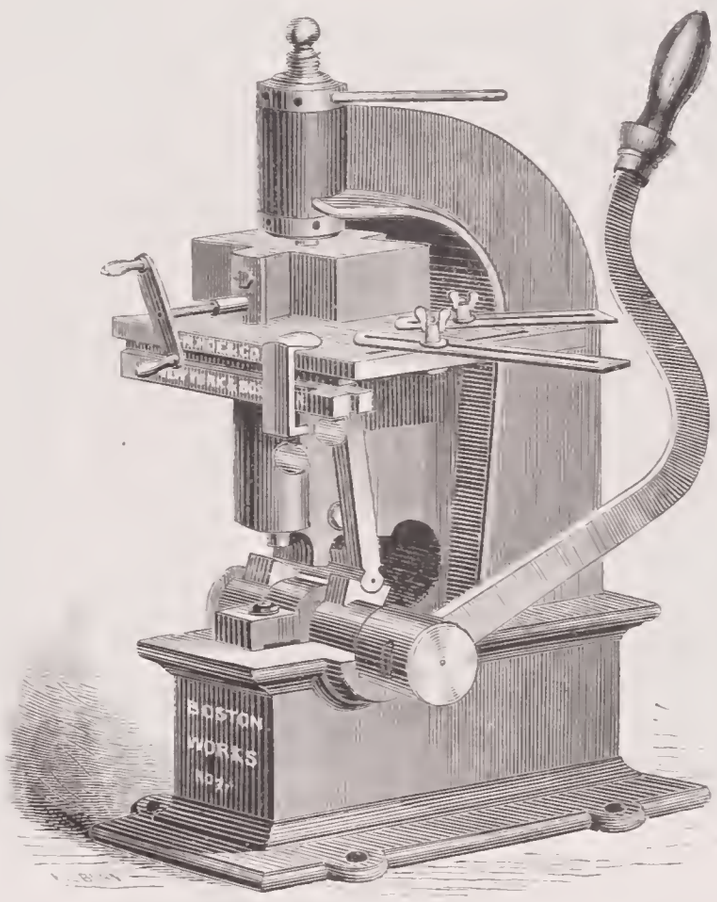
Cigar Box Press.

This Press is simply our Small Embossing and Gilding Press, with the proper fixtures for stamping or branding Cigar Boxes.

Price, $250.

Boxing and Carting, $5.

Terms of Payment—Cash at manufactories.



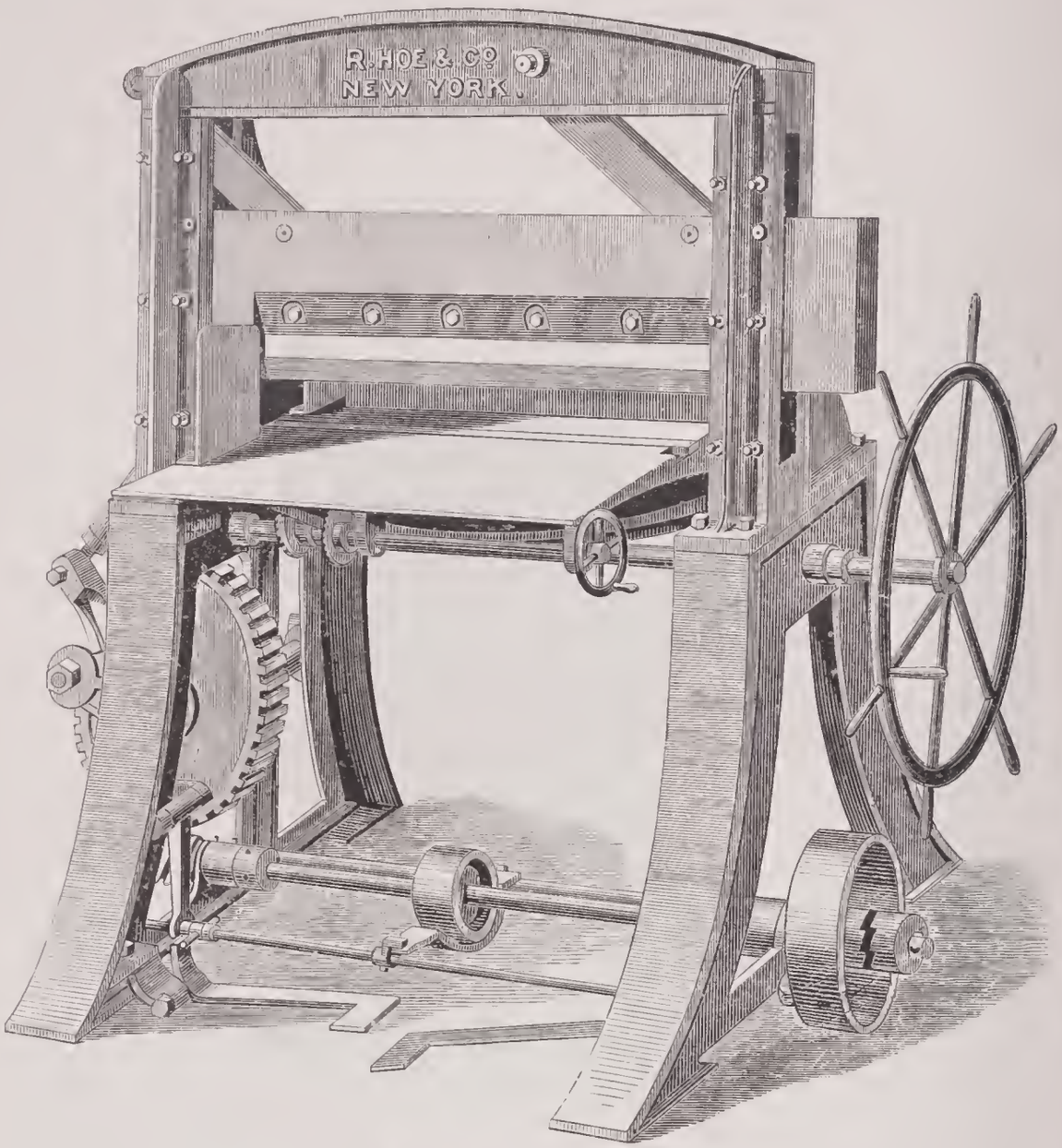
Half-Arch Embossing and Gilding Press.

This is an exceedingly convenient Press for light work, as the bed is open on three sides and has a forward, backward and lateral motion, while the jaws of the head may be worked from the front or from either side. Size of head, 5 × 8 inches inside.

Price, $

Boxing and Carting, $

Terms of Payment—Cash at manufactory in Boston.



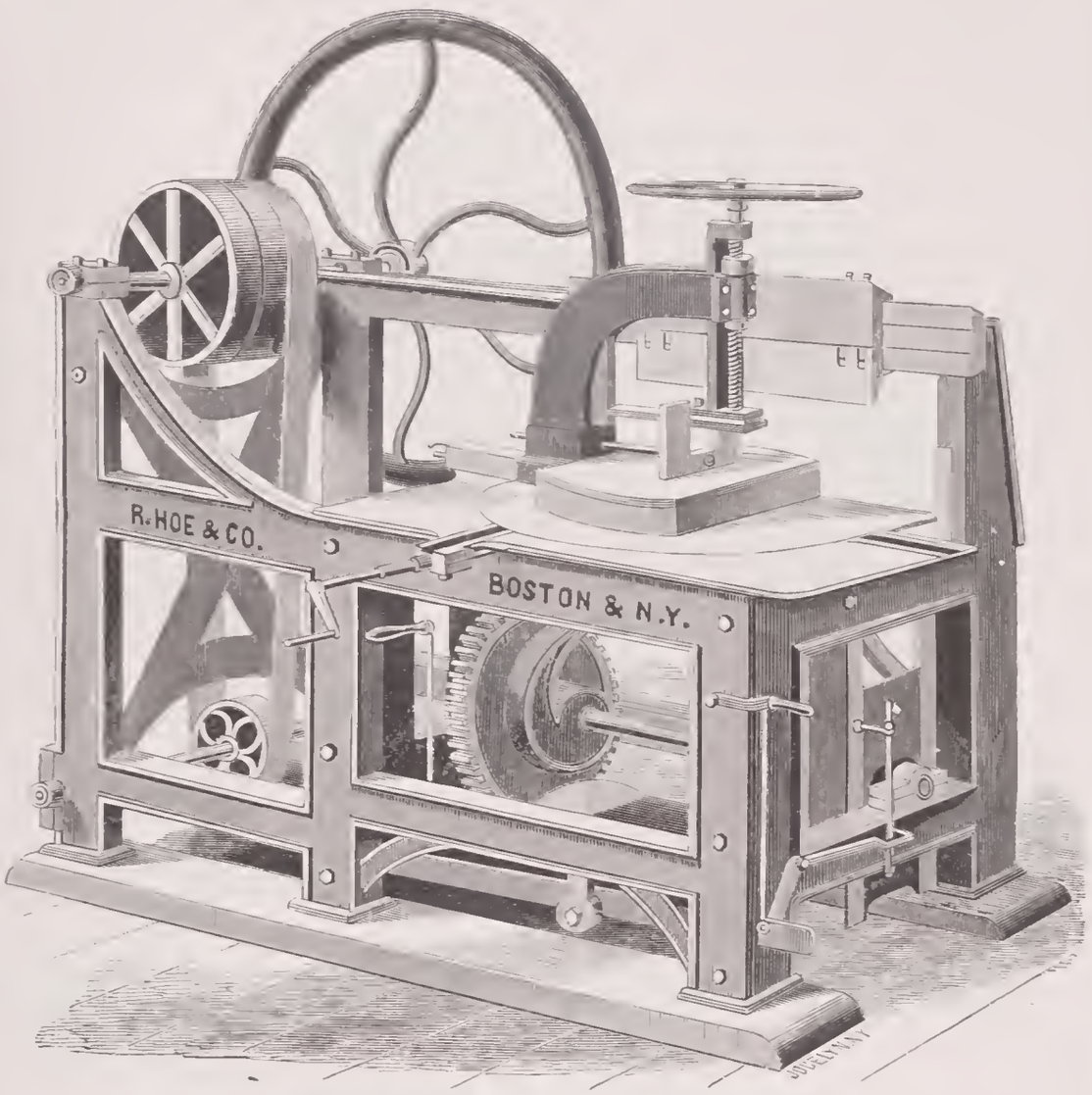
Power Paper-Cutting Machine.

This is an exceedingly strong, simple and effective machine, which will cut the heaviest work with ease and precision. The knife is brought down obliquely to exactly the desired position by a crank motion, which returns it by a quick upward stroke and then stops. It is adjustable in height, but requires no other regulating for the various kinds of work ; is quickly taken off and replaced, and will stand at any point. The paper clamp is moved by screws operated by a hand wheel at the side of the machine. The rear guide is moved by a screw and small hand-wheel at the side of the table in front, and a side guide ensures the cutting of the work perfectly square.

Sizes and Prices.

No.	Width of paper cut.	Greatest space under knife.	Room occupied on floor.	Weight boxed.	Price.
1.	24 inches.	6 inches.	4 ft. 0 in. × 6 ft. 0 in.	3,000 lbs.	$1,150
2.	30 "	6 "	4 " 4 " × 6 " 6 "	3,250 "	1,300
3.	36 "	6 "	4 " 8 " × 7 " 0 "	3,500 "	1,450
4.	42 "	6 "	5 " 0 " × 7 " 6 "	3,750 "	1,600

Terms of Payment—Cash at manufactory in New-York.



Patent Book and Paper Trimming Machine.

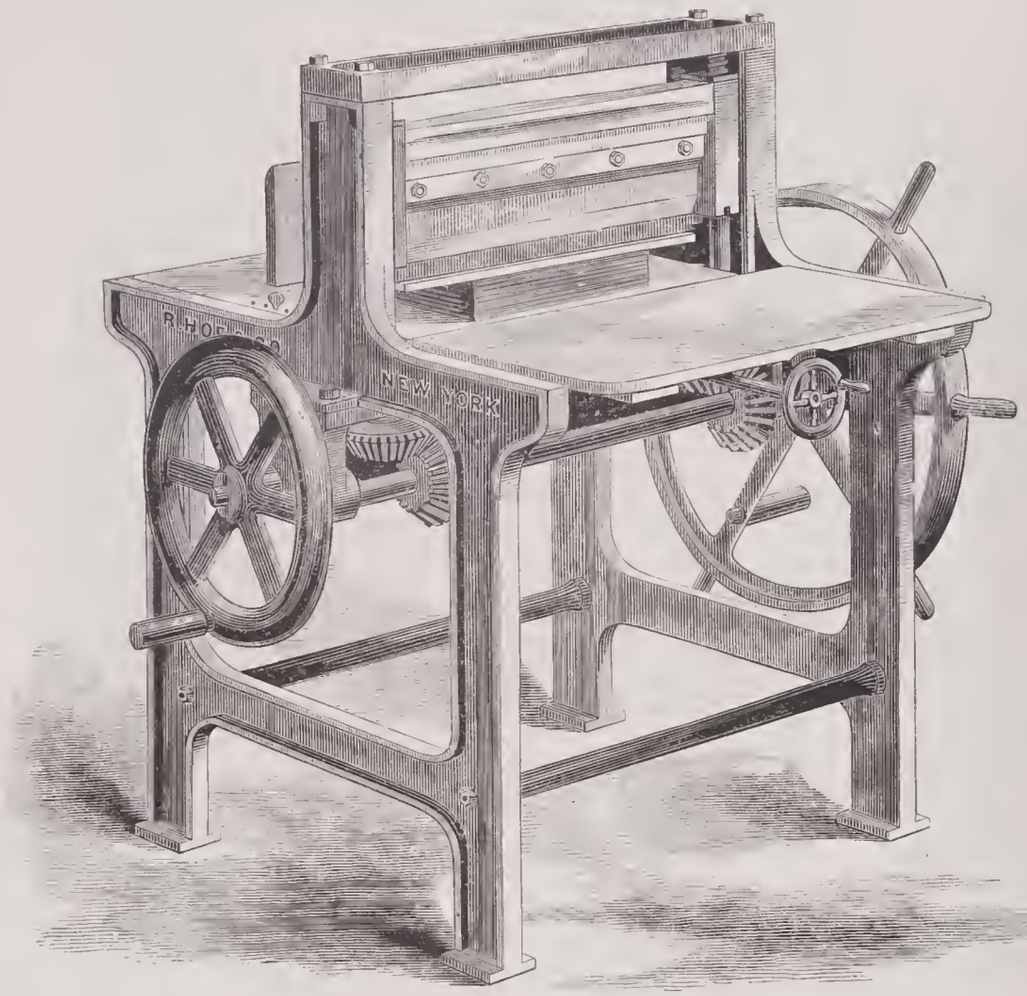
The knife used in this machine is 21 inches long, and has a short vibratory movement, thus combining the advantages of the long stationary knife with those of the ordinary plough. The work to be trimmed is placed on the bed of the press in front of the knife against the adjustable guide, and is compressed by the wheel and screw. The table on which the press stands is movable in all directions, and is also self-acting, so that when thrown into gear it rises to the required height, disengages itself, thus preventing injury to the knife, and then drops down to its original position. Three sides of the work can be successively presented to the action of the knife by simply turning the press to the quarter and half turn stops. The machine may be worked either by hand or steam power, and is easily adjusted to cut any size from three to eighteen inches in length, and from one inch to fifteen inches in width.

Space occupied on the floor, 6 feet × 2 feet 6 inches. Weight boxed, pounds.

Price, $1,000.

Boxing and Carting, $10.

Terms of Payment—Cash at manufactory in Boston.



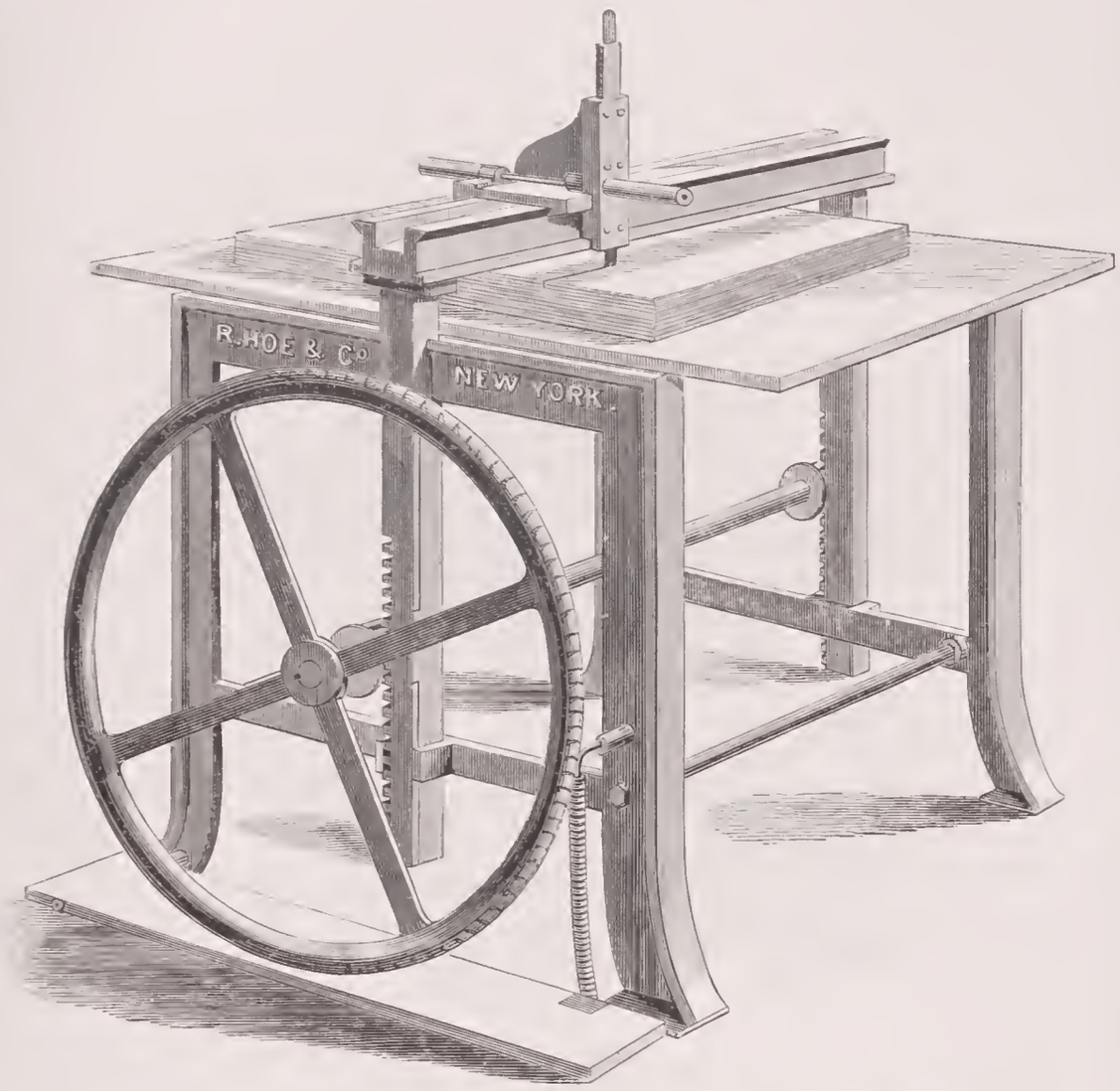
Hand Paper-Cutting Machine.

Our Hand Paper-Cutting Machine is made entirely of iron, except the paper board or table. The knife has no end vibration, but is brought down evenly by a vertical screw at each end, operated by a large hand-wheel on the outside of the machine. It will stand at any point; it is quickly taken off and replaced, and an adjustable stop prevents its cutting into the board. The paper clamp is likewise operated by screws and a hand-wheel, which is smaller and on the opposite side of the machine. The table has a rear gauge moved by a screw and small hand-wheel.

Sizes and Prices.

No.	Width of paper cut.	Weight boxed.	Price.	Boxing and Carting.
1	24 inches,	1,300 lbs.	$475.00	$5.50
2	30 "	1,375 "	575.00	6.00
3	36 "	1,450 "	675.00	6.50
4	42 "	1,525 "	775.00	7.00

Terms of Payment—Cash at manufactories.



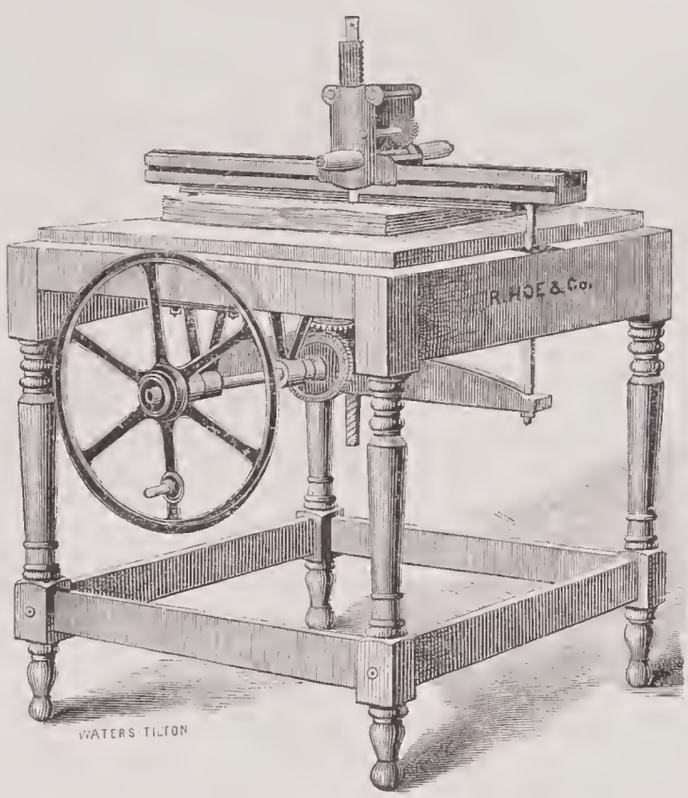
Plough-Knife Paper Cutter, with Iron Frame.

This is the simplest form of the Plough-Knife Machine, and is made entirely of iron, excepting the table. The plough slides on the cross head, being worked back and forth over the paper by hand, and any wear of the parts can be taken up by adjusting screws. The knife is fed down by double gearing. A small wheel, not shown in the cut, moves the table backward and forward, while the spring-treadle locks the cross head fast in any position. Width of paper cut, 27 inches.

Price, $100.

Boxing and Carting, $4.

Terms of Payment--Cash at manufactory in New-York.



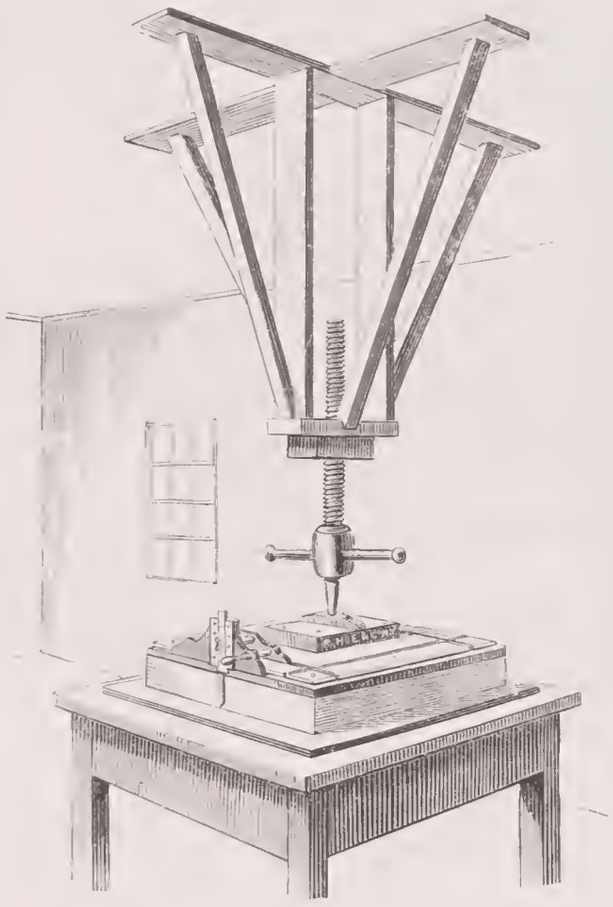
Plough Knife Paper Cutter, with Wooden Stand.

The knife slides back and forth on the cross-head, and is moved up or down by turning the handles. The cross-head is brought down to hold the paper in place by means of the hand-wheel. The stand is of hard wood, well put together.

Width of paper cut, 27 inches.

Price, $75.

Boxing and Carting, $4.



Squaring Boards and Plough.

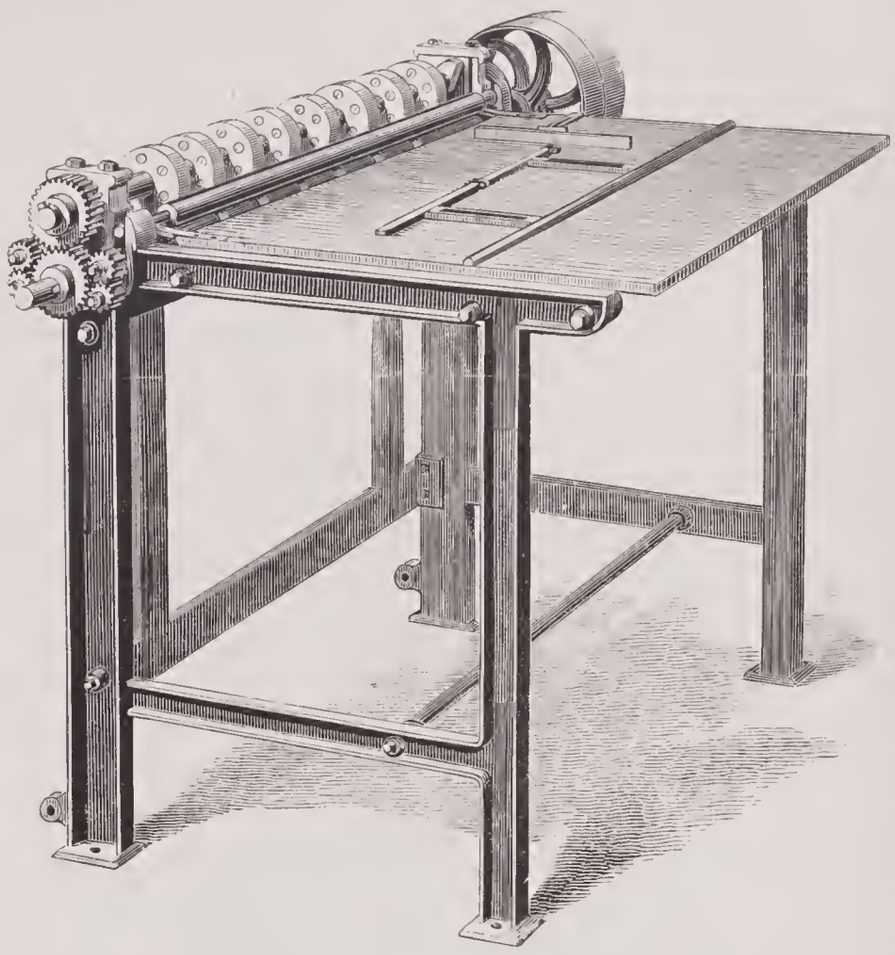
These afford a very simple means of squaring paper, as shown in the cut. The boards usually furnished are respectively 13 × 16 inches, 15½ × 19½ inches, 17 × 21½ inches and 19 × 27 inches, but the sizes can of course be varied as desired.

Price of Plough, with Knife and four Boards, $50.

Wood Screw for do. with Nut and iron Point, $5.

Table of hard wood, $20.

Boxing and Carting, $2.50.



Circular Mill-Board Cutters.

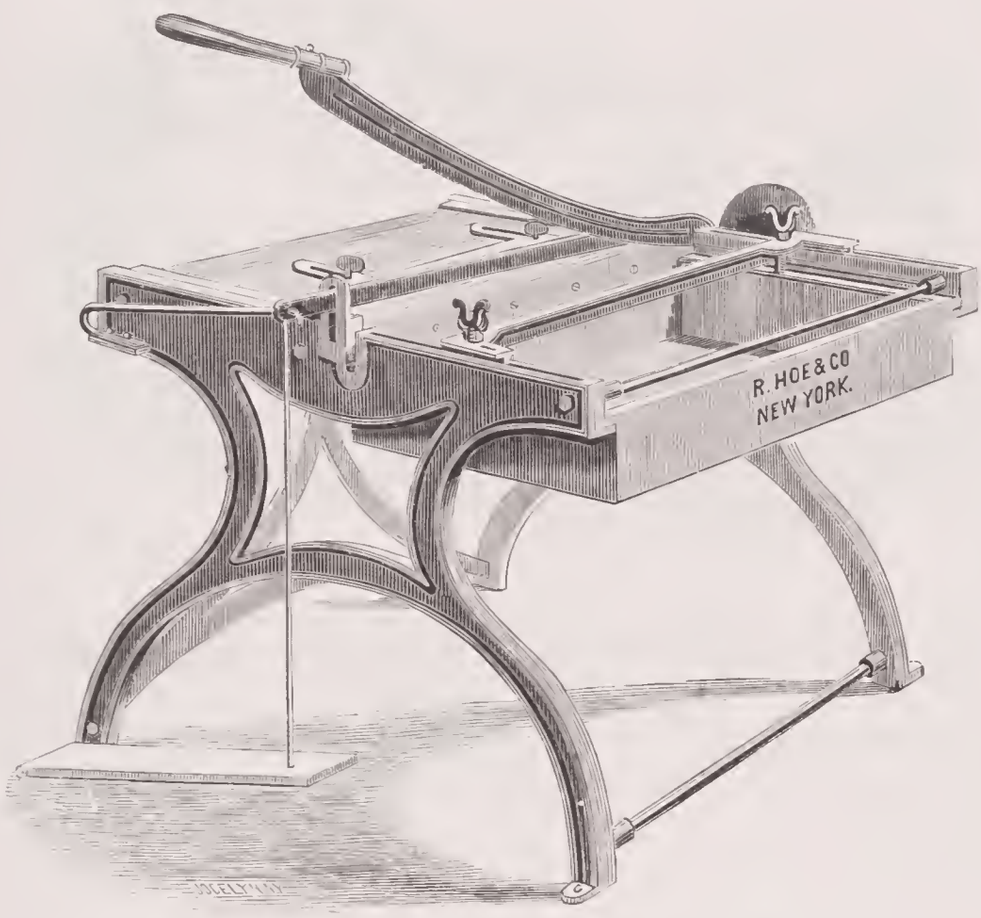
This Machine is especially designed for cutting up mill-board, card-board and similar material. The work is placed against adjustable gauges on a self-acting table which advances it to the cutters. Drawing rollers at each side of the cutters insure accuracy, and an arrangement of carrying bands is added, when desired, for unusually small sizes. The cutters are made of the best cast-steel and tempered. The machine is arranged to run by steam power, but can also be worked by treadle, if required. It occupies a space of from three to four feet square.

Sizes and Prices.

No.	Width of Board cut.	No. of pairs Cutters.	Price.	Boxing and Carting.
1	24 inches,	7	$400	$5.00
2	30 "	8	450	5.50
3	36 "	9	500	6.00
4	42 "	10	575	6.50

Extra Cutters, per pair, from $20. Carrying Bands, extra, $40. Treadle, extra, $40.

Terms of Payment—Cash at manufactory in New-York.



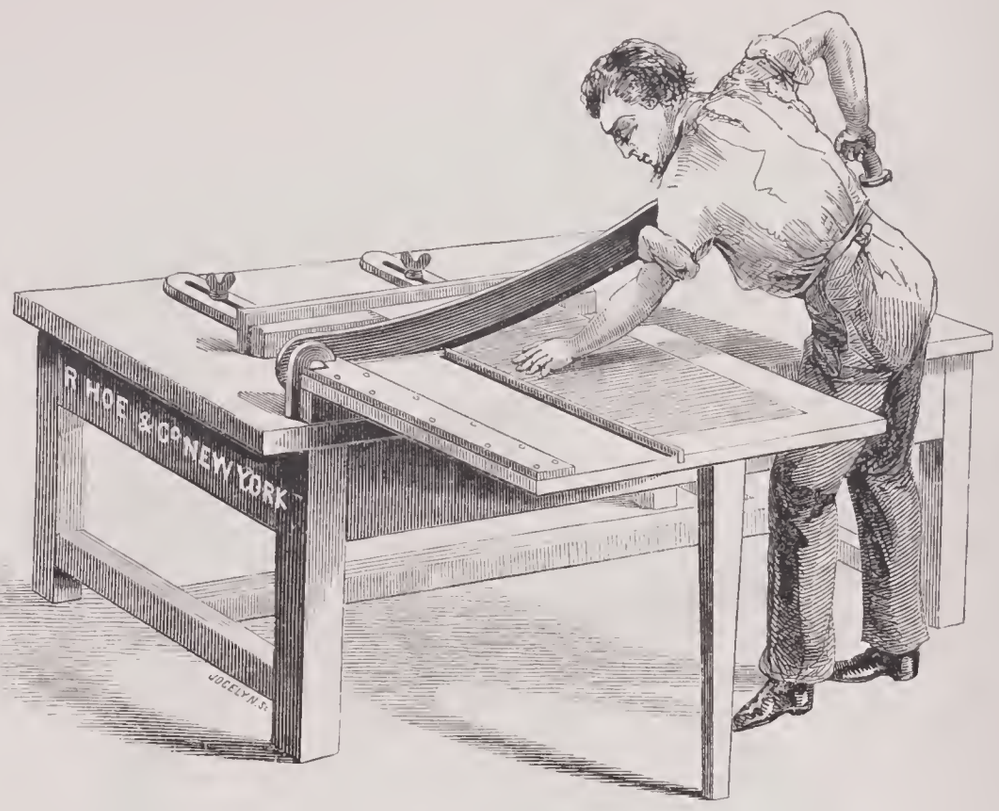
Shears and Iron Table for Mill-Board.

The frame and table are made of cast-iron and fitted up substantially. The table and gauges are planed true. The cutters are of cast-steel, and can be adjusted by set screws, taken off to be re-ground, and, when worn out, replaced at a trifling expense. A spring lever, which is brought down by a treadle, holds the board while cutting. The blades of the shears are 29 inches long.

Price, $175.

Boxing and Carting, $4.50.

Terms of Payment—Cash at manufactory in New-York.

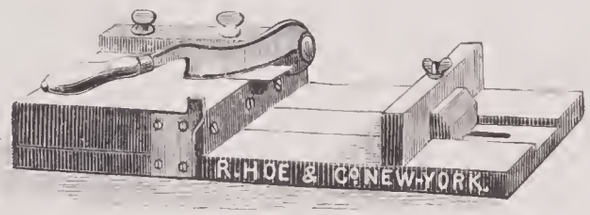


Shears and Wood Table for Binders' Mill-Board.

The table is strongly made. The length of cutting edge of shears, 26 inches. Larger or smaller sizes made to order.

Price, $60.

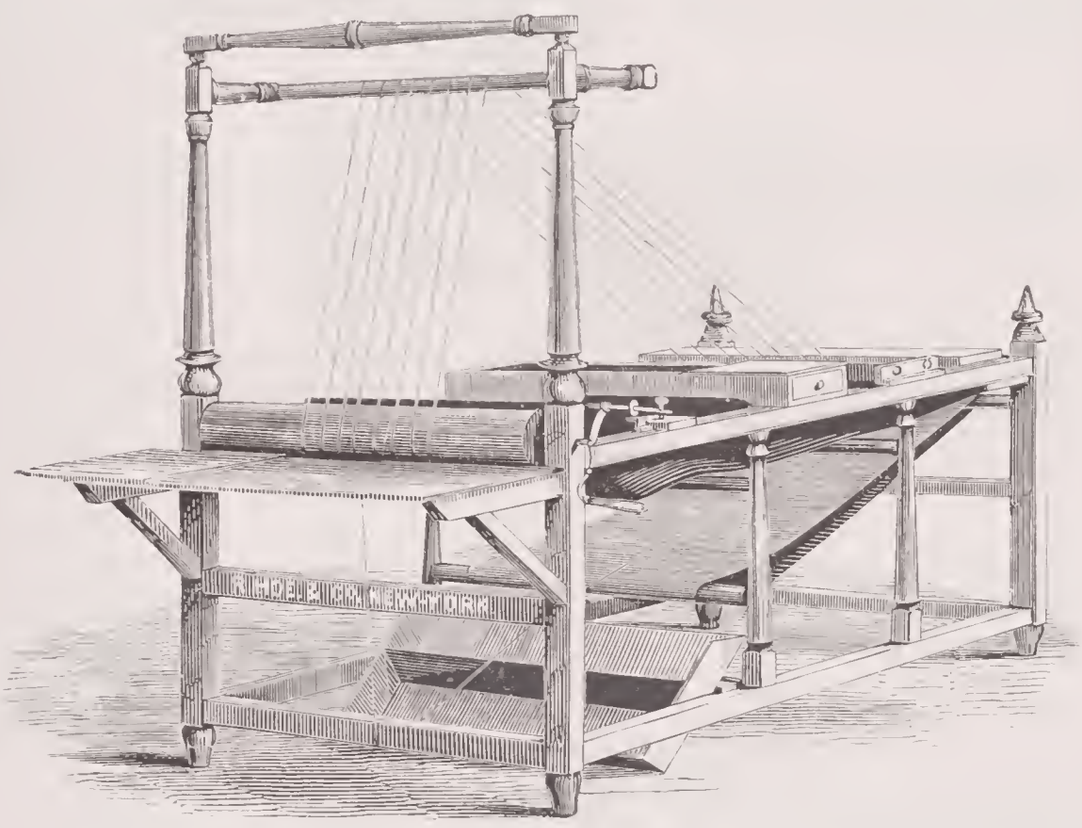
Boxing and Carting, $4.50.



Card Cutter.

The frame is of hard wood, well seasoned, with a sliding gauge and adjustable back-piece; the shears are accurately fitted, and the whole machine simply and substantially made.

With 6-inch Shears	$16.00.
With 7-inch Shears	17.50.
With 8-inch Shears	19.00.
With 10-inch Shears	22.50.
With 12-inch Shears	25.50.
With 14-inch Shears	30.00.



Ruling Machine for Blank Books, Bills, &c.

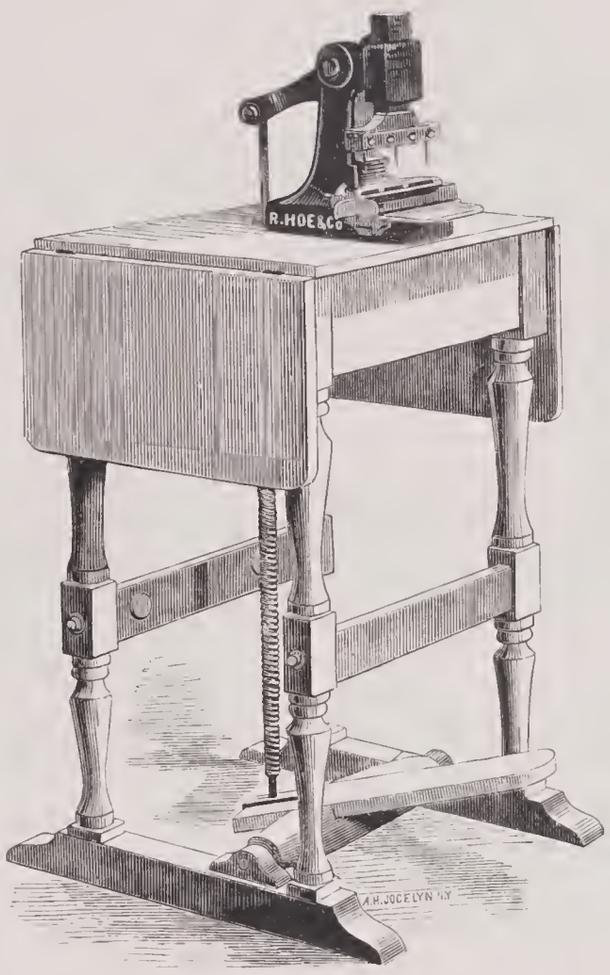
This machine is thoroughly well made, the bearings being of brass accurately fitted, and the principal cylinders, which are of mahogany, being with their cloths adjustable by set screws.

Size of paper ruled, 26 inches. Space occupied by machine on floor, 4 feet × 11 feet 6 inches. Height, 7 feet.

Price, $250.

Boxing and Carting, $7.50.

Terms of Payment—Cash at manufactory in New-York.



Piercing Machine, for Pamphlets, &c.

This machine is simple and durable. It can be arranged to run by steam power if desired. The clamp which holds the needles is so made that they can be changed in position, and their number increased or diminished in a few seconds.

Price, $55.

Boxing and Carting, $3.

Book-Sawing Table.

This is a very convenient and expeditious machine. The saws are readily adjustable.

Price, $

Terms of Payment—Cash at manufactory in New-York.

Steel Lines for Bookbinders.

Price per foot.

No. 1 $2.63

No. 2 $2.63

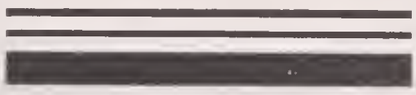
4 3.75

3 2.63

5 3.75

11 3.75

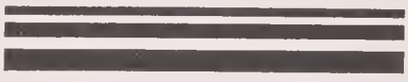
6 4.50



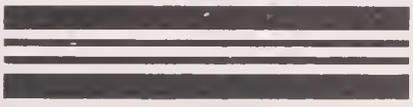
12 4.13

7 4.13

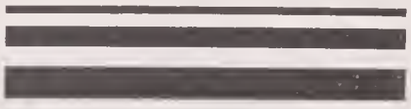
13 4.50



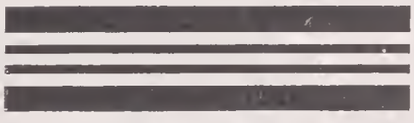
8 4.50



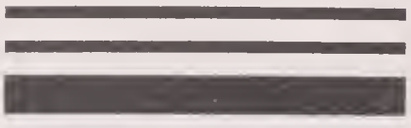
14 4.88



9 4.50



15 4.88

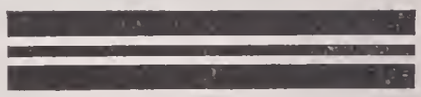
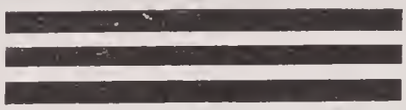


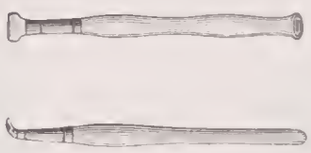
10 4.18

16 5.13

Steel Lines for Bookbinders.

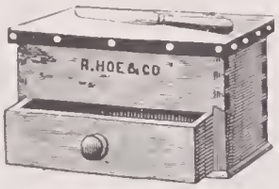
Price per foot.

No.		No.	
17 $3.00		25 $3.00	
18 3.75		26 3.75	
19 3.75		27 4.13	
20 3.75		28 4.50	
21 3.00		29 3.00	
22 3.38		30 3.38	
23 3.75		31 3.75	
24 4.13		32 4.13	



Agate Burnishers.

Price, each, $2.50.



Gold Cushion, with Drawer.

Price, from $5 to $10.

Squaring Shears.

Price, per inch of cutting edge, $2.

Backing Boards.

Price, per inch, 25 cents.

Steel Polisher.

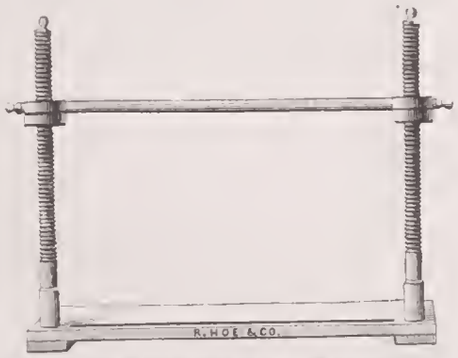
Price, $5.

Backing Hammer.

Price, $2.

Beating Hammer.

Price, $3.50.

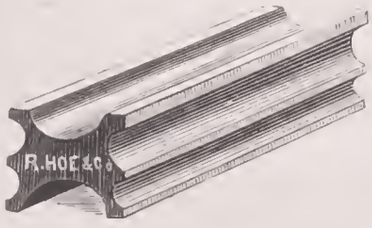


Sewing Bench.

Price, $2.75.

Finishing Press.

Price, $3.25.

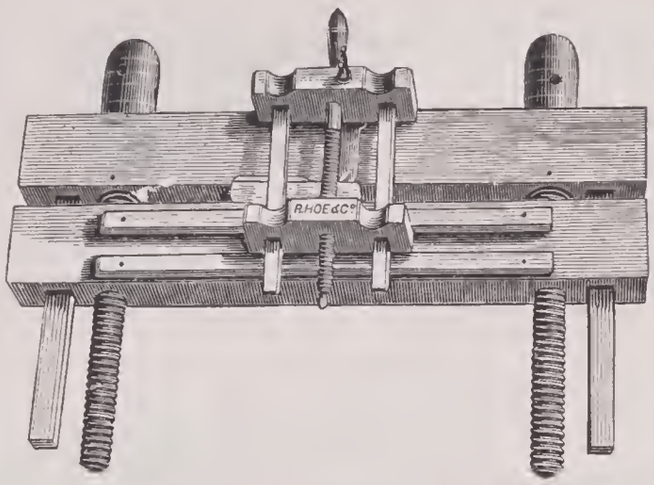


Backing Iron.

Price, $

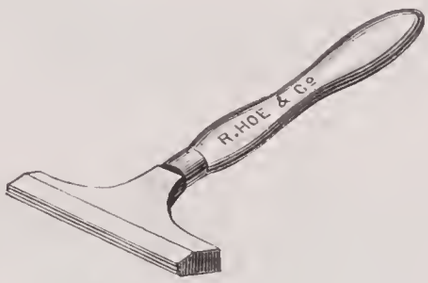
Gilding Roll.

Price, $.



Binders' Press and Plough.
Price. $15.

Plough-Knife.
Price, 75 cents



Burnisher.
Price, $5.

Pallet.
Price, 5.60.

No. 1. Quarto.

No. 2. Cap.

No. 3. Demy.

No. 4. Medium.

No. 5. Super Royal.

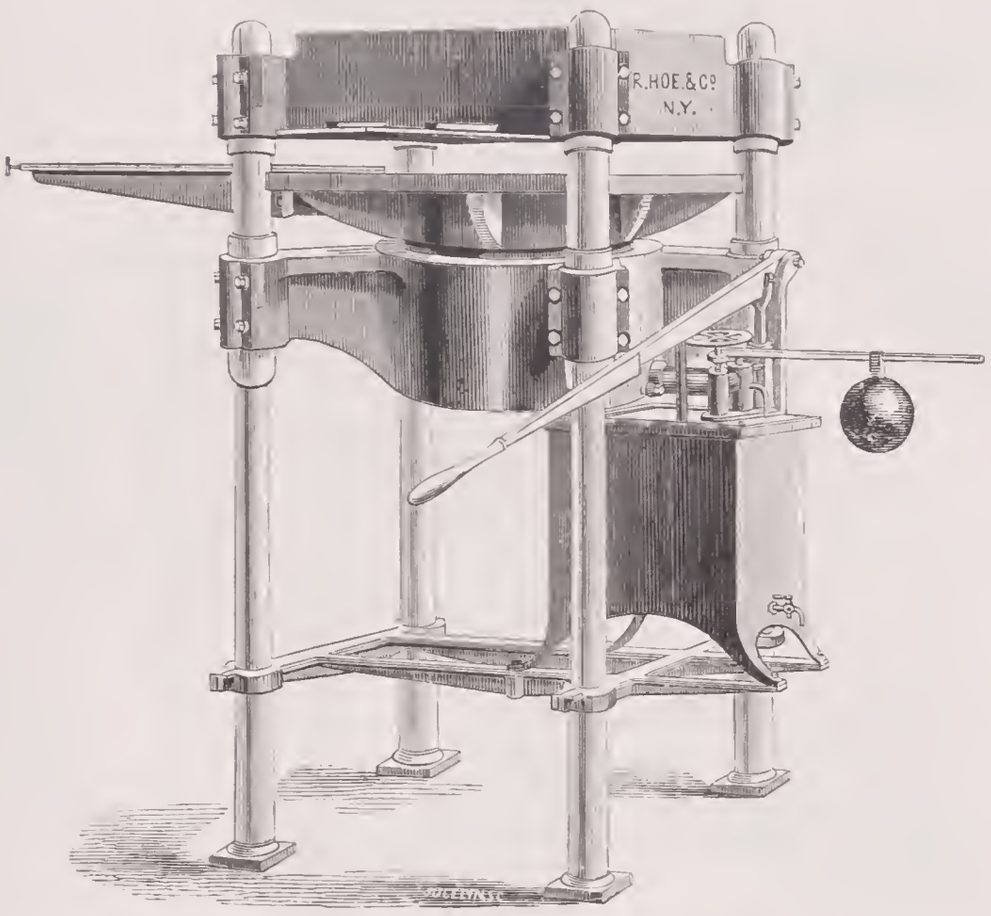
No. 6. Cap.

No. 7. Demy.

No. 8. Medium and Royal.

No. 9. Imperial.

Joint Rods, for Blank Books.
Price, 75 cents per dozen.

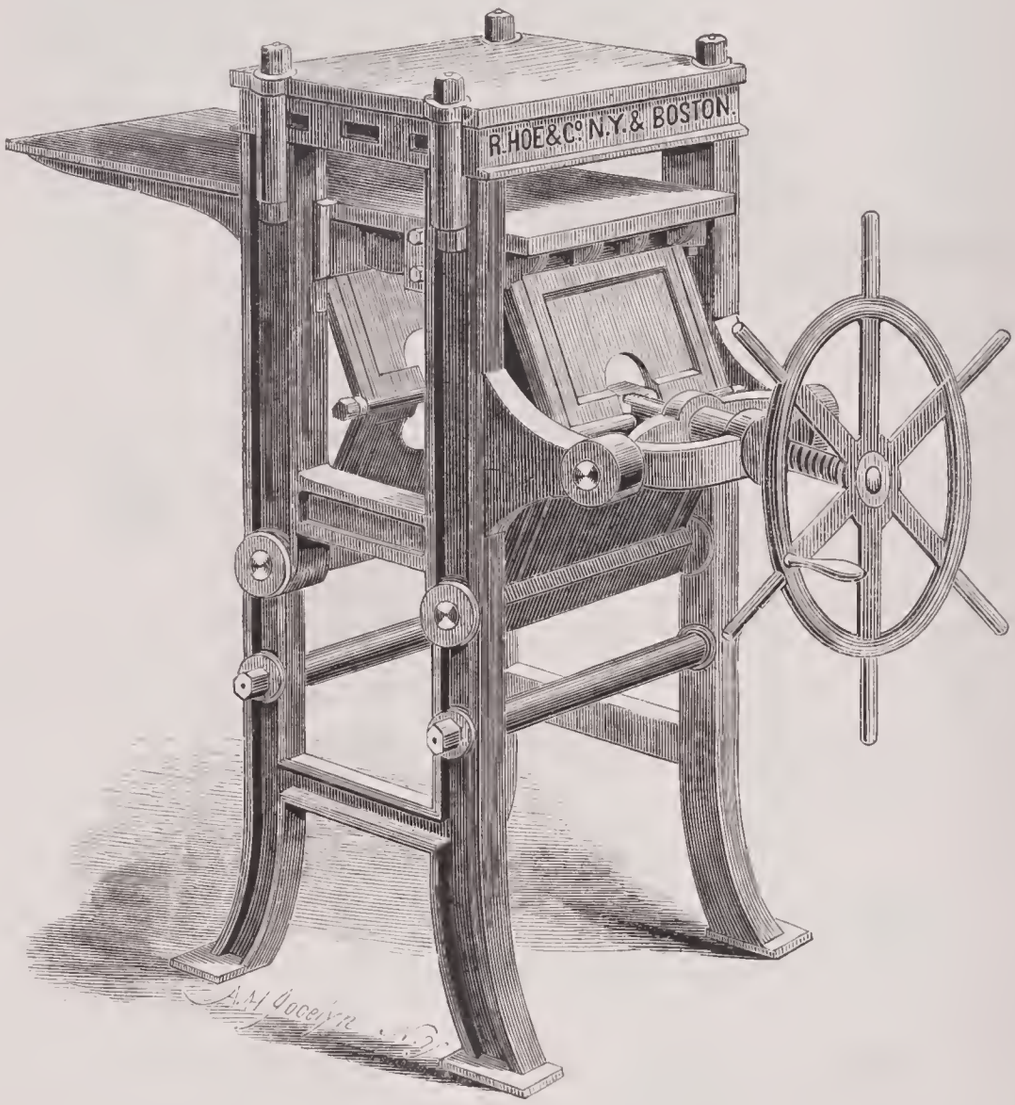


Hydraulic Press for Electrotype Moulds.

This Press, especially designed for the above purpose, is very convenient, compact and powerful. The platen is provided with a projecting table, upon which the form and mould are prepared before being placed in the press. The pump is supported by a frame-work on the cistern below the cylinder, and has a safety valve so graduated as to give any required pressure.

Price, $1,000.

Boxing and Carting, $



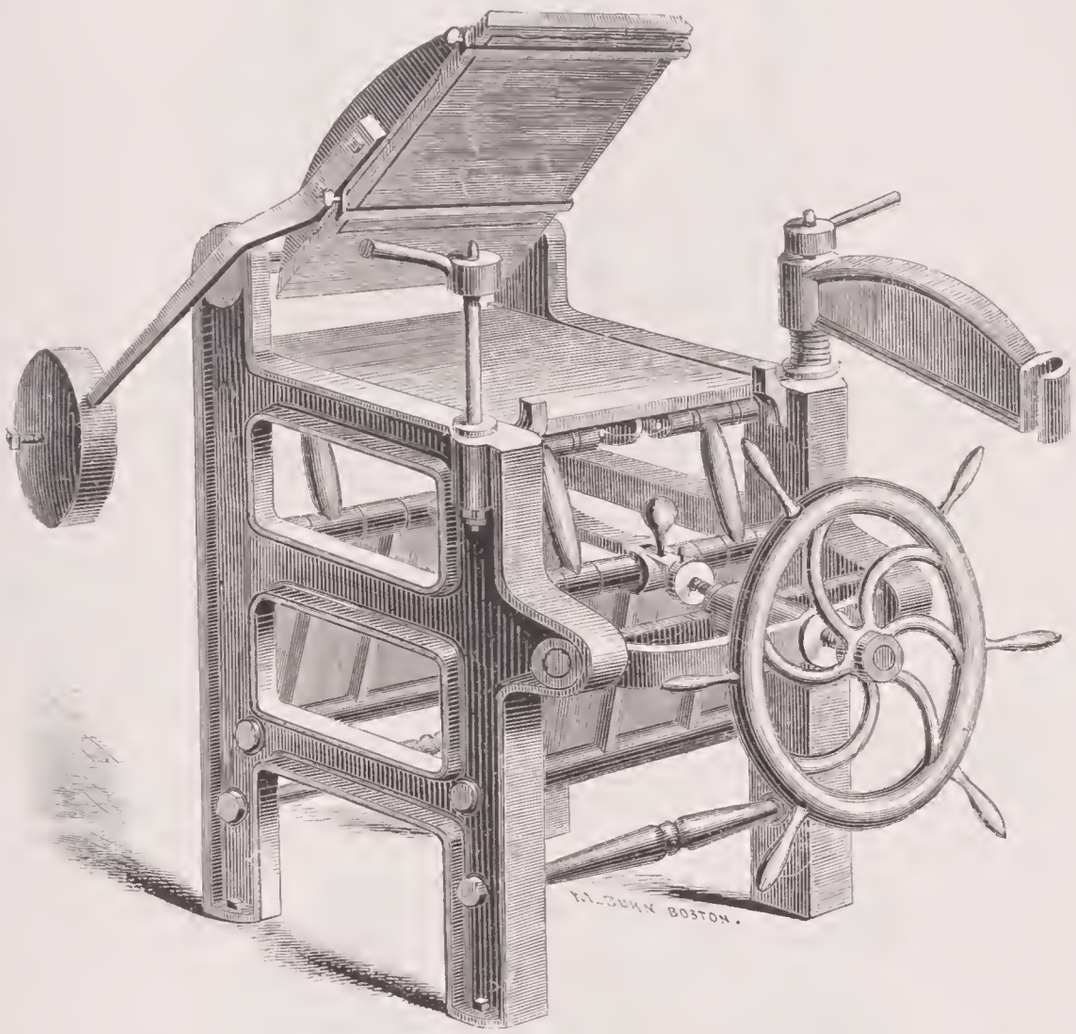
Toggle Press for Electrotype Moulds, with Solid Head.

In this machine the pressure is given by two toggle joints which are operated by a screw and crank wheel. The platen is provided with a projecting table where the form and mould may be arranged.

Size of platen, 16 × 19½ inches. Weight boxed, 1,040 lbs.

Price, $400.

Boxing and Carting, $5.



Toggle Press for Electrotype Moulds, with Swinging Head.

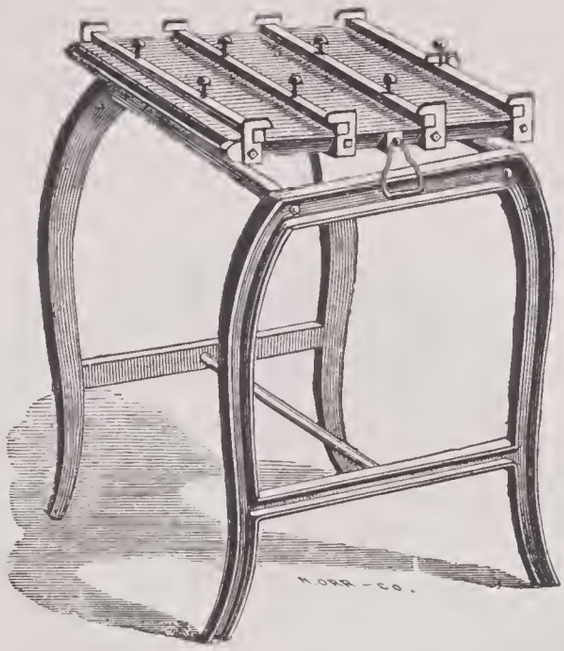
This Press is similar in principle to that on preceding page, but the head is hung on pivots and so counterbalanced that it can be readily thrown up, leaving the whole bed exposed.

Size of bed, 17 × 21 inches.

Price, $600.

Boxing and Carting, $

Terms of Payment—Cash at manufactory in New-York.

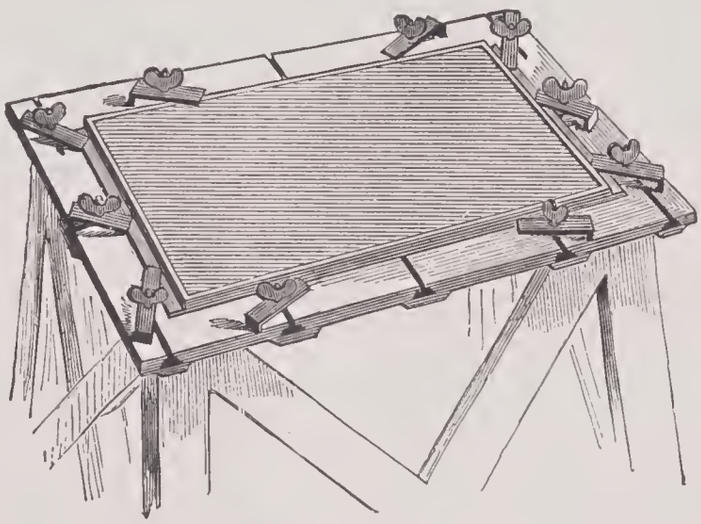


Backing Pan.

(FILMER'S PATENT.)

This Pan, for backing electrotype shells, presents the advantages of producing plates with truer printing surfaces than has been done by any other process, and also of a uniform thickness, thus saving much time in the laborious operation of shaving.

Large Size, $139.20.
Small Size, $120.

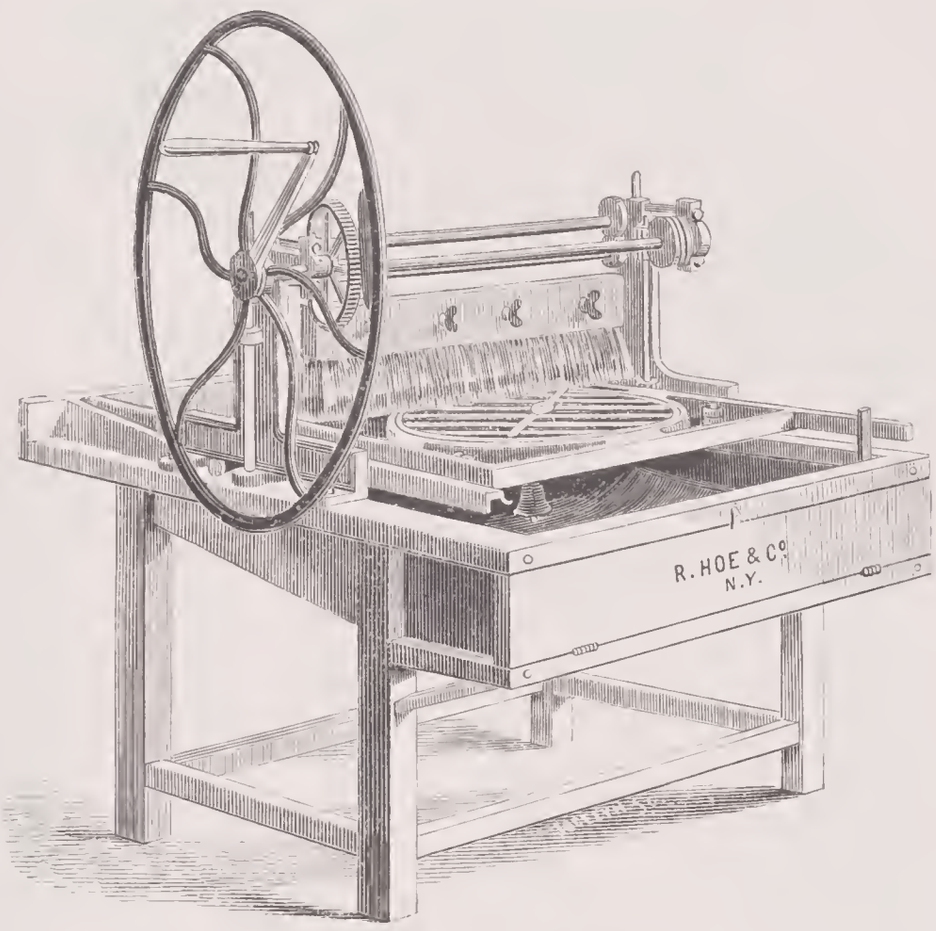


Moulding Pan.

(FILMER'S PATENT.)

The Pan shown above is such as is commonly used by electrotypers for holding the wax upon which the impression is taken. It is made of brass, either from a rolled sheet with the rim riveted on, or cast in one piece.

Size 20½×14½ inches, cast brass.....$28.80.
Do. " " " rolled brass ..... 22.40.
Other sizes in proportion.



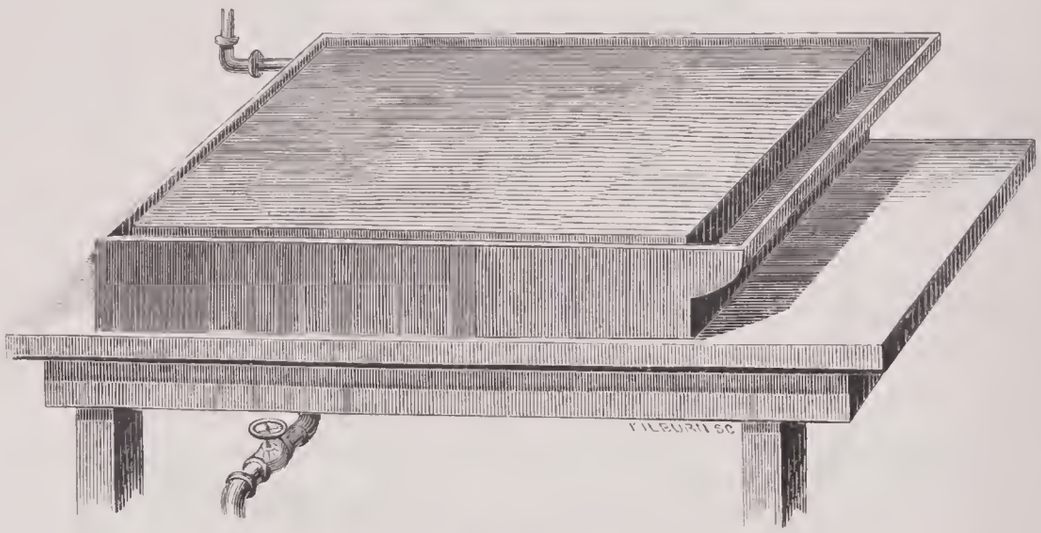
Blackleading Machine.

(ADAMS' PATENT.)

This machine performs quickly and neatly the disagreeable operation of black-leading the wax moulds for electrotyping. The mould is placed on the turn-table of the traveling carriage, in front of the operating brush, under which it is passed slowly backwards and forwards by the motion of the crank. If the moulds are small, several may be placed in the machine at once: one 12×18 inches can be blackened in two minutes. An apron under the machine catches the powder and prevents waste.

Price, $440.

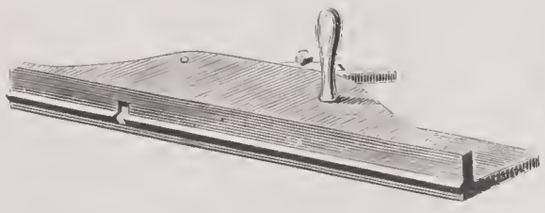
Boxing and Carting, $



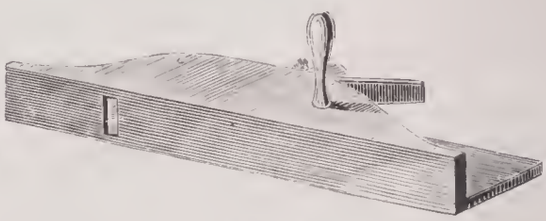
Steam Heating Table.

This is a cast iron steam chest on which the brass cases are placed in order to detach the moulds. Any wax which may run down is conveyed by channels to a receiving vessel. The condensed steam furnishes a supply of hot water for removing the copper shells.

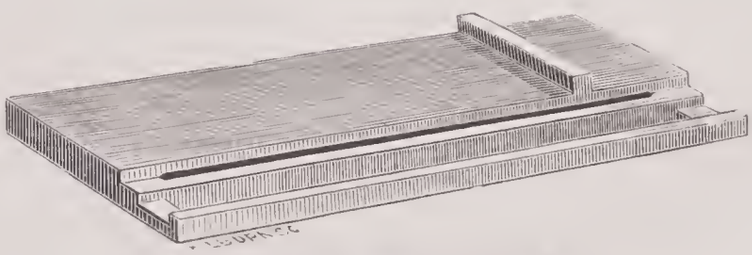
Size, inches.
Price, without wood stand, $
Price, with wood stand, $
Boxing and Carting, $



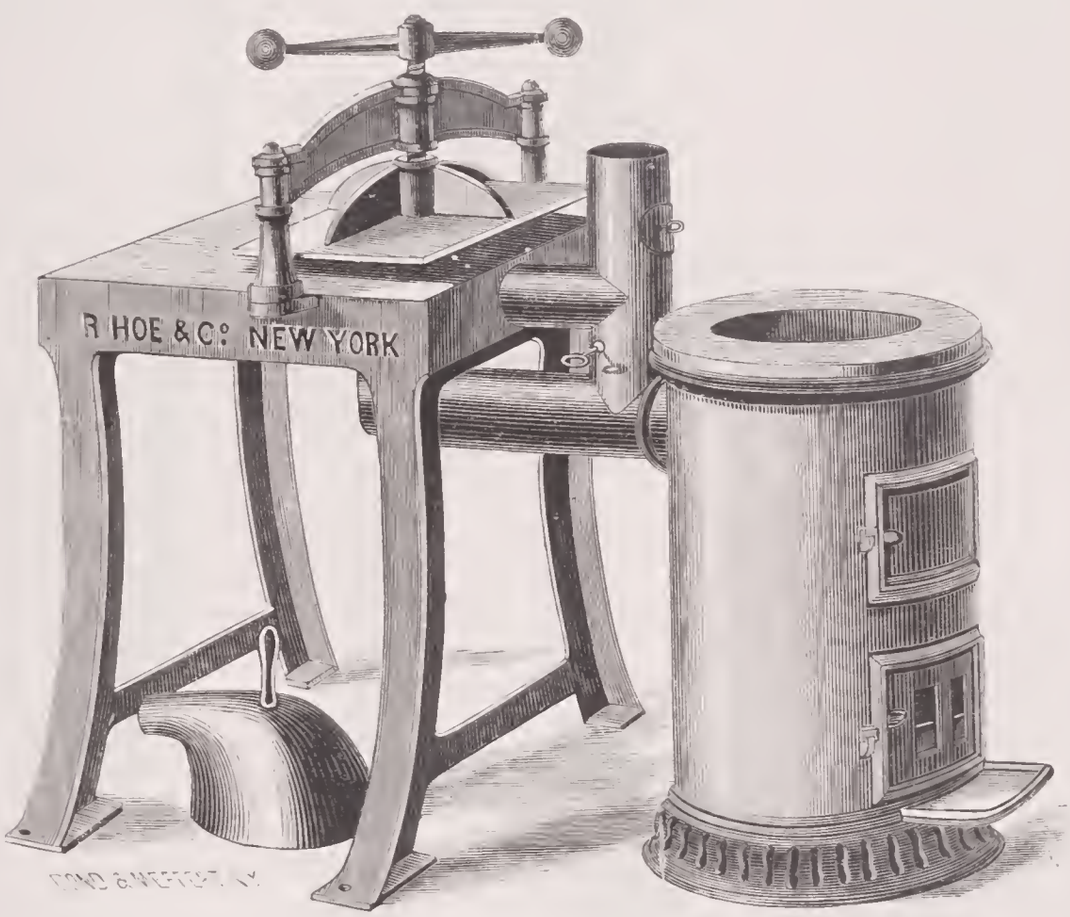
Side Plane.



Jointer.



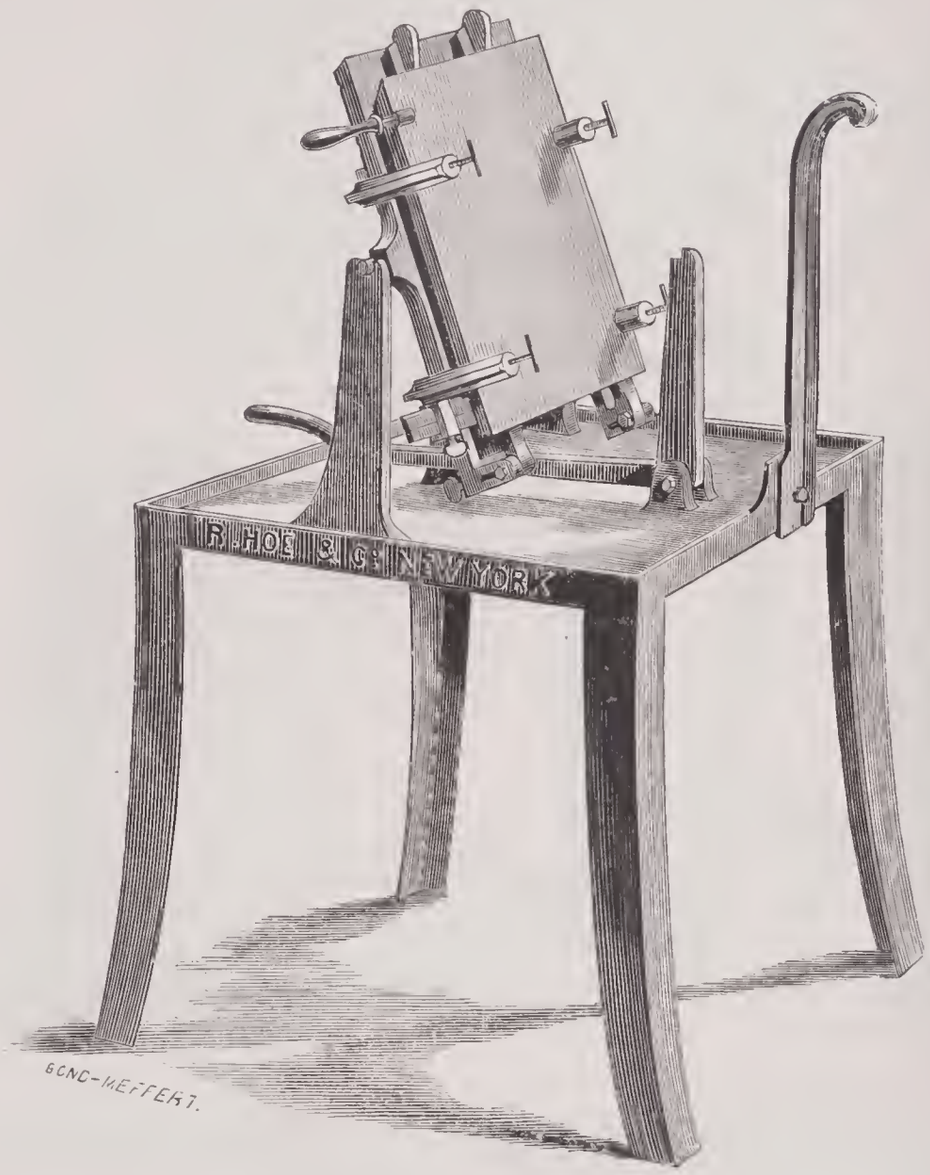
Stereotypers' Shoot-board.



Press for Stereotype Moulding by Paper Process.

Size of Platen, 11 × 14 inches.
Price, $165.
Boxing and Carting, $

Terms of Payment—Cash at manufactory in New-York.



Stereotype Mould, Paper Process.

Size of plate, 9 × 12 inches.
Price, $125.
Boxing and Carting, $

Terms of Payment—Cash at manufactory in New-York.

Directions for Stereotyping by the Papier Mache Process.

To Prepare the Paste.

Take 5 ozs. of flour, 7 ozs. of white starch, powdered alum the size of a walnut, and 4 quarts of water. Put the flour, starch and alum into a saucepan, and mix with a little of the water COLD until the whole becomes of the consistency of thick cream. Then gradually add the remainder of the water, WHICH MUST BE BOILING, stirring well in the meantime to prevent its being lumpy. Put the saucepan over the fire and stir until it boils, then let it stand until quite cold, when it should have the appearance of jelly. When you are ready to use the paste, mix together 1 pound each of bookbinder's paste and powdered Spanish whitening, and add this to the first mixture. Stir them well together, and strain the whole through a fine seive by rubbing it through with a piece of wood. The whitening should only be mixed with the paste in small quantities, or as required for use, as it will cause it to ferment in a day or two, and become unfit for use ; whereas the paste by itself will keep for a long time. Some few persons well versed in this process, use more whitening than recommended above.

Suitable Paper.

It is necessary that the proper kinds and qualities of paper should be used. By using the specimens furnished with the apparatus as samples, there will be no difficulty in getting supplied at almost any stationers.

To Prepare the Paper for the Matrix.

Paste a piece of say quarto blotting paper evenly all over on one side. Put a layer of tissue paper on the top of that, gently smoothing with the hand,—this forms the face of the matrix,—turn over, paste the other side of the blotting paper, add a thin sheet of double crown, about 18 lbs. weight, paste again, then add another sheet, this forms the embryo matrix. Persons beginning this process should make the matrix thicker than here recommended by adding more blotting papers, which will of course take longer. It is preferable to have the paper for matrices prepared a day or two in advance, and two plain type metal plates cast in the mould will be found very convenient to lay them between, to keep them flat and moist.

To Impose the Form.

Impose the form with the type-high wood or metal furniture round the type, as you would put an ordinary rule border, putting the beveled edge close against the type; place the form on an imposing stone, or other flat surface, slightly loosening the quoins. You can make the type-high metal furniture yourself by casting it in the mould, using the thickest or heating gauge, then bevel the edge that goes against the type with plane and shoat-board.

To Mould the Matrix.

Cut a piece of the above prepared paper with scissors rather larger than the page to be stereotyped, prepare the face, *i. e.*, the tissue side, with powdered French chalk, gently but evenly brushing it over with the preparing brush. Lay the paper face downwards on the type—first oiling the type with a soft and clean shoe brush; use the best salad oil very sparingly, take a piece of coarse linen, dip it in cold water and wring it out, lay it over the back of the matrix, and commence gently beating it into the type, taking care to bring the beating brush down flat every stroke. When well beat in, paste a piece of cartridge paper on to the back of the matrix, and beat again without the cloth, then gently lift up one corner of the matrix to see if it is sufficiently deep, if not, beat again. If an open or rule-work form, gently prick the cartridge paper through where the open parts occur, to liberate the air. Extra depth may be had by packing between the matrix and cartridge paper small pieces of an old matrix that has been cast from, carefully pasting them to the matrix, taking care that the piece so pasted should not exceed half the size of the blank space.

When experience is gained in moulding, the matrices are best made as follows: First, lay down a blotting paper and paste evenly, then add a tissue paper, then two more coatings of paste, and two more tissues, and keep between the metal plates till ready for use. Before using them, paste another tissue in front of the other three, oil your form and French chalk the face of the matrix as before, add several more blottings, and beat again at each layer ; then tighten the quoins, and place form, with the matrix still on, under the

Moulding Press.

The gas having been previously lighted, put a double thickness of blanket on the matrix, and screw down pretty hard, let it remain ten or fifteen minutes, unscrew the press, remove the blanket, and let the matrix dry about ten miuutes, then remove the form and gently separate the matrix; it frequently occurs, until experience is obtained, that the matrix will not leavo the type, in which case make the form once more hot, and plunge form, matrix, and all into cold water, the matrix will then separate, but of course is destroyed, and a fresh one must be made; but this seldom, if ever occurs, after a little practice.

If wood cuts, or forms with wood cuts are wanted to be doue, the same process is applicable, excepting that the matrix must be dried cold, and consequently takes much longer.

To Prepare the Matrix for Casting.

Cut the matrix round with scissors, leaving about three pica ems of margin. Beat down with a hammer any raised inaccuracy caused by the imperfect joining of the high furniture, paste a piece of brown paper to the edge of the matrix, *i. e.* on the margin in front, lay it on the moulding press to get thoroughly warmed through.

To Prepare the Metal.

Old type or stereotype plates melted down will answer every purpose. Be careful not to put damp pieces in the molten metal or it will cause it to fly. When old metal is used, it should be fluxed several times, and bear in mind, it is impossible to flux metal too much. Heat the metal quite hot (but not red hot), and throw on it about a table-spoonful of oil, and stir it well. Put in a little more oil and stir again, then throw a handful of ashes over the metal and skim it, when it should look like quicksilver. The dirty oil from a press, an old oily rag, or in fact, almost any greasy substance will answer the purpose as well as the oil. If the metal hangs about the melting pot as though it was tinned, it is of poor quality, and if the flux does not set it right, it is nearly worthless, and the plates cast from it will be honeycombed. As fluxing the metal gives out a disagreeable smell, it is well to do it when the men are not at work; or what is better, have a small, portable, sheet-iron bonnet made to the melting-pot with a small door through which to flux and stir the metal, and a pipe leading to a flue or chimney to conduct off the odor from the flux. This bonnet must be lifted off when casting. To ascertain the right heat of the metal, for casting, fold some writing or other paper into slips, dip it into the metal pot, and if it burns the paper black, the metal is too hot, and would burn your mould up; but if it turns it a straw color, it is just right.

The Iron Casting Mould.

With every new apparatus, the paper back of the mould, *i. e.* the paper that is pasted on to the cover of the mould, is apt to come off, owing to the oil used in the process of manufacture. To paste a new back on, use the paste without the whitening, then evenly paste on a piece of blotting paper, and then two sheets of cartridge paper; bring them over the top, but not over the sides or bottom, and let them thoroughly dry, and then well rub with French chalk; it is a good plan to screw it down tight on the moulding press for a few miuutes, when cold.

To Cast the Plate.

Place the thick heating gauge in the casting mould, properly adjusted, and pour it full of metal, this will heat the mould, take away the heater and heating gauge, place the matrix in the mould, so that the paper hangs out of the mouth; then place the thin casting gauge round the three sides of the matrix, close to the work, and upon the margin, close the mould and screw it tight. Hold the overhanging piece of paper in the left hand, and after skimming off the dross, pour a continuous stream of molten metal; the paper is simply to conduct the metal and to prevent its getting behind the matrix. It is not necessary to pour more than one heater, unless you suffer the mould to get cold.

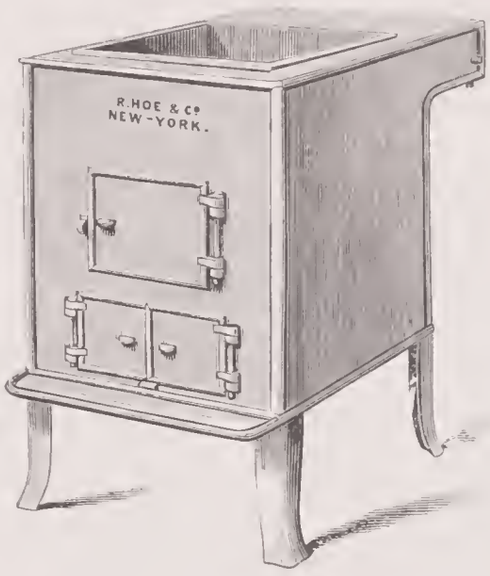
It is almost unnecessary to remark, that in handling hot metal plates, furniture, &c., it is requisite to have holders, made of carpet, blanket, or any stout woolen fabric.

To Separate the Matrix from the Plate.

Take your matrix and plate out of the mould, and separate them, but should they refuse to part, beat the matrix with the beating brush; if still obstinate, make the plate hot on the moulding press, and plunge into cold water, then put them with the matrix downmost in the hot moulding press, and press tightly with the hand, the steam will force the matrix from the plate, your plate will be good, but the matrix spoiled, and your having occasion to do so, is evidence that you have not correctly followed out these instructions; but should the matrix separate from the plate without any difficulty, you may cast some twenty or more plates from the same matrix.

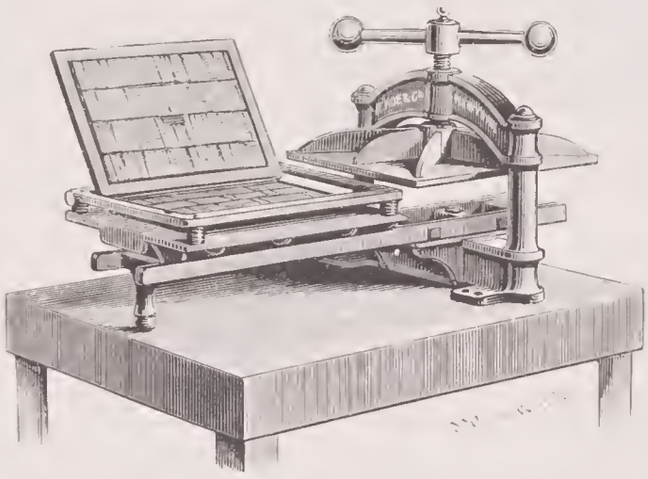
To Prepare the Plate for Blocking.

Cut off the pour by scratching the hook along several times, and it will break from the plate by striking it sharply against the edge of the imposing surface, then plane all around close to the work with the plane and shoatboard, and your plate is ready for mounting; but if you require the plate for our patent stereotype blocks, use the bevel plane.



Stereotype Melting Furnace, Clay Process.

Price, $82.50.



Press for Stereotype Moulding, Clay Process.

Price, $150.

Terms of Payment—Cash at manufactory in New-York.

Building Iron.

Directions for Stereotyping with Clay Mould.

Mixing the Composition.

1st. Take two parts of dry China clay of the finest quality and sift it through fine bolting cloth; then take one part of powdered soap stone, also sifted; mix them together with water until they are of the consistency of tough dough. In order to ensure a thorough mixture of the clay and soap stone, lumps of the dough, of a convenient size for handling, should be splashed or beaten with considerable force on a marble slab or iron plate. These lumps should be laid away in a clean place, where no dust can get to them, for future use. A quantity of composition should be made at once, sufficient to last three or six months, as age materially improves its quality. It should never be used less than a month old.

2d.—Place the form on the bed of the press; see that it is properly locked up, spaces down, etc., as is usual with plaster stereotyping; then take a fine goat-hair brush, dip it lightly into a little kerosene oil, which should be at hand, and brush the face of the type well with it.

3d. In order to make the moulding composition of a proper consistency for use, take a lump, and if too dry, crush it on the marble slab; mix a little water cautiously with it until you can work it with considerable labor with the trowel; then mix with it a little gum-arabic, dissolved in water, say a teaspoonful to a quarter of a pound of composition; then spread out on the slab and sprinkle about a teaspoonful of fine plaster of Paris to every quarter of a pound of composition; pour a little more water on, and mix it well with the trowel. This should be done quickly, as the plaster is designed to harden the composition slightly during the process of moulding, for which it is now ready.

Moulding.

4th. The moulder will observe that there are two flat iron plates, one being one inch narrower than the other; take the smaller of the two, and with the trowel spread the moulding composition over it as evenly as possible. An absolutely even thickness is obtained by the levelling instrument, which is made to fit exactly the sides of this plate, and is drawn to and fro over the composition.

5th. This iron plate, with the moulding material thus prepared, is set into the spring frame on the bed of the press, and kept steady by the thumb screw.

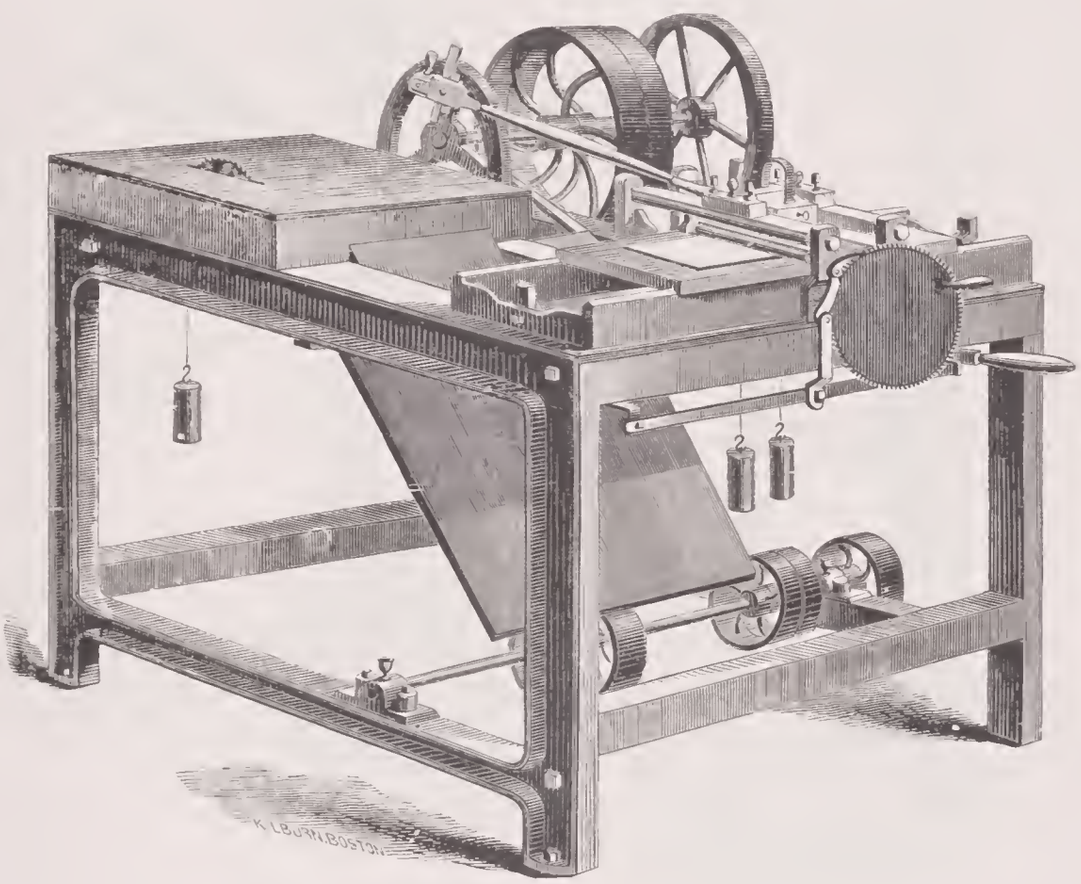
The form having been previously brushed over with the kerosene oil, now cover it with a sheet of thin white paper, and over that with a piece of thin white muslin; then turn the plate over and take a light impression; run the bed back, lift the plate, and observe how far the impression has gone; take the muslin and paper off, brush the form lightly with the oil again, put on another piece of paper and cloth, laying the previous ones aside for future use; then run under again and take another light impression, being careful not to go too far; lift the moulding plate again, and take off both cloth and paper. This operation is only to give depth to the spaces and blanks.

Now brush again with the oil, and take an impression into the clay, without any cloth or paper. This must be done lightly and with care, as, if the impression is too deep, the clay will tear out. It generally requires two or three impressions after the cloth and paper are removed to get a good mould, each impression being a little deeper than the preceding one; by the time the last impression is made, the composition has become somewhat harder from the setting of the plaster of Paris.

6th. After getting a good mould, clean the edges of the iron plate from the surplus composition, so that the bent wire may go around three sides. The iron plate, with the mould, should now be placed on the flat part of the metal furnace, and dried until no steam can be seen, when it must be taken off and placed on the top of the other flat iron plate, which is one inch larger, and the two placed on the melted metal, where they will float, with the face of the mould up. Here they must remain until the two plates and the mould are of the same temperature as the melted metal, which can be easily found by pouring a few drops on the cleared edge of the iron plate; at first it will set then, when it is melted, the plates, with the mould, can be taken out.

7th. Place the two plates on the upper edge of the metal pot; slide one off the other; put the bent wire round the three sides of the mould; then with a pair of tongs put the larger plate on, so that three of the sides shall be even and the inch of extra width shall project over on the fourth side. Now clamp the three sides, and place the whole in the trough in an inclined position, the larger plate being at the back, pour in the melted metal, and, when full, sprinkle water on with the watering pot, commencing at the bottom, and gradually cooling up; as the metal cools and shrinks, fill up with fresh metal.

When the metal sets, take out the cast and wash out the clay with a brush and water.



Stereotype Planing Machine.

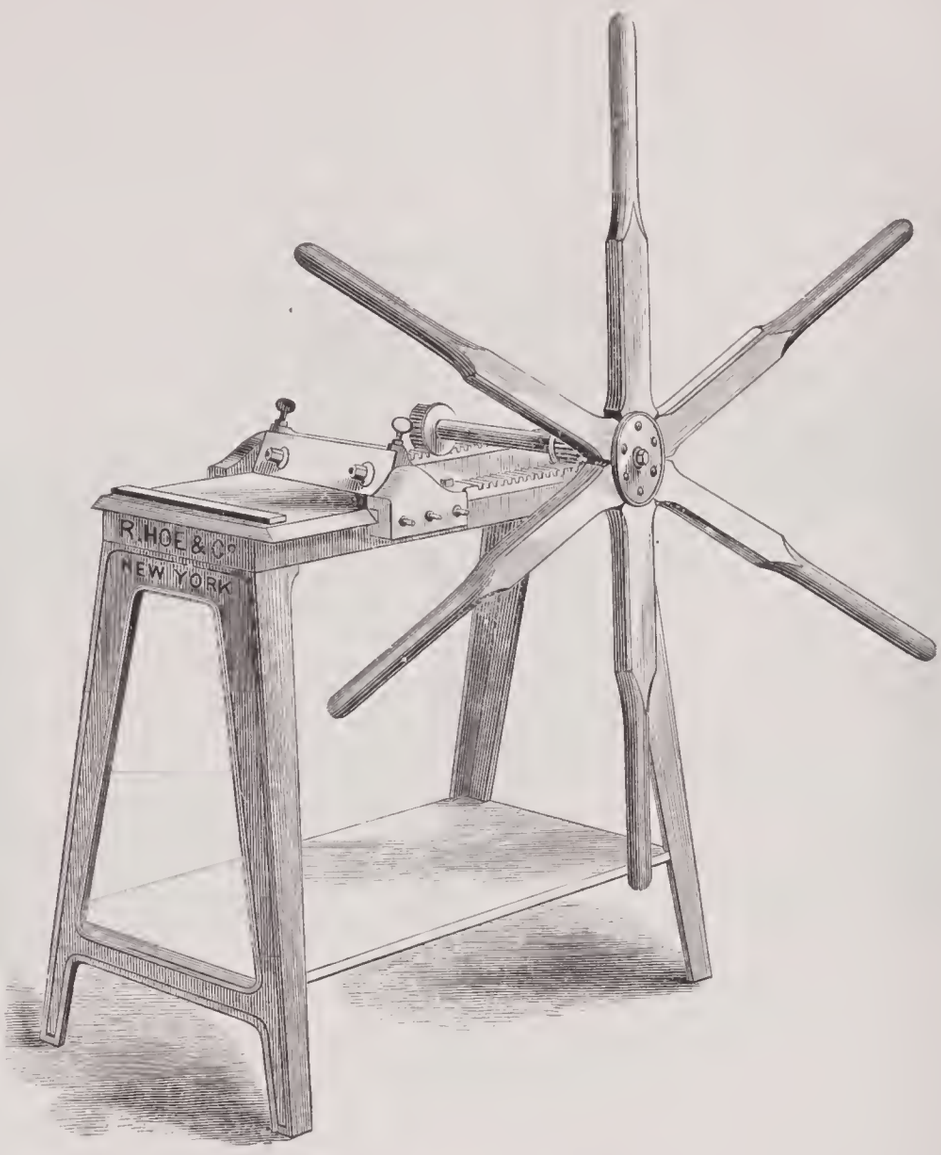
This useful machine has till lately been made and sold by A. K. P. Welch, Esq., of Cambridge, Mass. It is intended for roughing off the stereotype plates before sending them to the "Shaving Machine," and is very simple, quick and efficient in operation. A circular saw runs in an iron table at one corner for squaring up.

Size plate planed, 11½ inches wide.

Price, $

Boxing and Carting, $

Terms of Payment—Cash at manufactory in New-York.



Stereotype Shaving Machine.

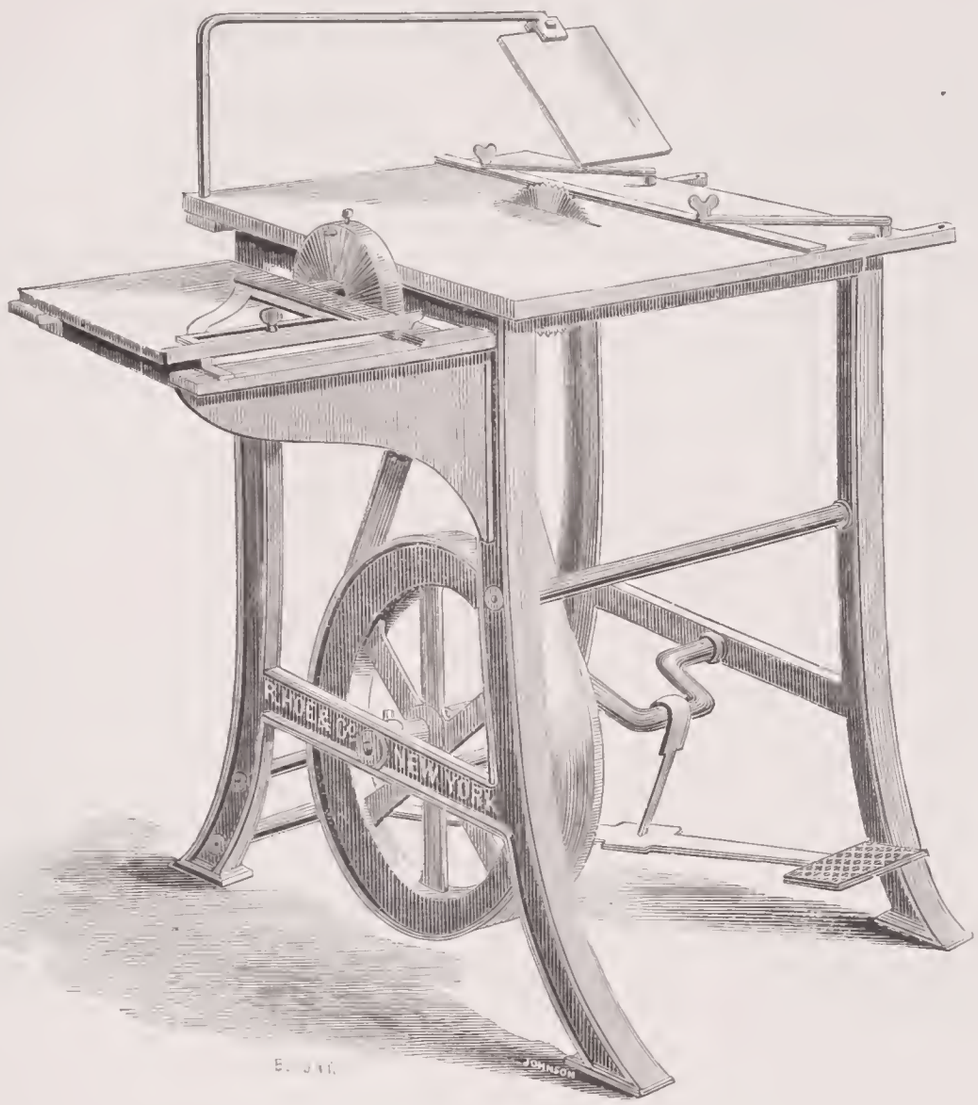
This machine, for *thicknessing* stereotype plates, is made all of iron. It consists of a east iron bed, planed perfectly true, and on which the plates to be shaved are plaeed. A sliding head, with a knife attached, that can be adjusted by set serews, is arranged to slide over the bed. This head is operated by the arms outside of the maehine, on the shaft of which are two pinions that gear into two raeks connected with the sliding head. Thus the head and knife are made to move forth and baek over the stereotype plate until it is reduced to the requisite thiekness.

Sizes and Prices.

No. 1.....	Bed 11½ inches wide.....	$160.00.
	Extra head.....	40.00.
No. 2.....	Bed 16½ inches wide.....	240.00.
	Extra head.....	56.00.

If ordered with gearing, extra.

Boxing and Carting, $4.



Stereotypers' Saw Table.

This Saw is arranged specially for cutting stereotype plates, electrotype plates and work of a similar nature. The saw mandrel is of steel, and is driven by a treadle and belt through a heavy fly-wheel, the momentum of which is sufficient to carry the saw through the work. This wheel is so balanced as to stand with the treadle raised from the floor, so that it is always in a position to start. The saw can be sharpened in place by pressing a wooden wedge between it and the slit in which it runs. A glass protects the eyes of the operator from chips when the saw is at work. For running by power, the fly-wheel and cranked shaft are replaced by an ordinary pulley and straight shaft, having tight and loose pulleys on its outer end. When so ordered, a cutter-head can be put on the outer end of the mandrel, with a small sliding table outside of it, as represented in the cut, for squaring up metal blocks for cuts, &c. Parallel gauge and square furnished when ordered.

Table and Saw to work by foot or steam power	$240.00.
With Outside Cutter Head and Sliding Table, extra	96.00.
Parallel Gauge and Square, extra	40.00.
Boxing and Carting	7.50.

Estimate for a Weekly Newspaper.

Newspaper 28 × 42 inches.

1 Imperial No. 6 Washington Press	$435.00
1 Imperial No. 6 Distributing Frame, Roller Stocks, &c.	45.00
1 Imperial No 6 Roller Mould, cast iron	28.80
1 Double Imperial No. 6 Imposing Stone and Frame	95.25
2 Imperial No. 6 Half Chases at $9.00	18.00
6 Single Brass Bot. Proof Galleys at $3.40	20.40
6 Common Galleys, at $1.00	6.00
6 Six or eight in. Comp. Sticks, at $1.50	9.00
4 Double Stands, with Racks, at $8.50	34.00
25 Pairs Cases, at $3.50	87.50
4 Job Cases, at $2.25	9.00
Iron Side and Foot Sticks	7.00
Mallet, Planer, Shooting Stick, Quoins and Bodkins	6.00
1 Lye Brush	1.13
1 Proof Brush	1.50
50 lbs. News Ink, at 35 cts	17.50
250 Advertising Rules, at 8 cts	20.00
100 Single Dash Rules, at 9 cts	9.00
50 Brass Dashes at 12 cts	6.00
20 Double Cross Rules, at 12 cts	2.40
20 Parallel Cross Rules, at 12 cts	2.40
28 Column Rules, at $1.20	33.60
Head Rules, about	7.50
50 lbs. Leads and Slugs, at 40 cts	20.00
500 lbs. Long Primer, at 62 cts	310.00
400 lbs. Brevier, at 70 cts	280.00
Display Type, for Reading Matter, about	30.00
Display Type, for Advertisements, about	45.00
Head for Paper, from $3.50 to	6.00
Cuts or Ornaments, about	12.00
	$1,604.98

BOXING AND SHIPPING, EXTRA.

Newspaper 24 × 38 inches.

1 Imperial No. 4 Washiugtou Press	$390.00
1 Imperial No. 4 Distributing Frame, Roller Stocks, &c.	37.50
1 Imperial No. 4 Roller Mould, cast iron	26.40
1 Double Imperial No. 4 Imposing Stone and Frame	78.75
2 Imperial No. 4 Half Chases, $7.50	15.00
5 Single Brass Bot. Proof Galleys, at $3.40	17.00
6 Common Galleys, at $1.00	6.00
5 Six or eight inch Comp. Sticks, at $1.50	7.50
4 Double Stands, with Racks, at $8.50	34.00
20 Pairs Cases, at $3.50	70.00
4 Job Cases, at $2.25	9.00
Iron Side and Foot Sticks	7.00
Mallet, Planer, Shooting Stick, Quoins and Bodkins	5.00
1 Lye Brush	1.13
1 Proof Brush	1.50
35 lbs. News Ink, at 35 cts	$12.25
150 Advertising Rules, at 8 cts	12.00
75 Single Dash Rules, at 9 cts	6.75
50 Brass Dashes, at 12 cts	6.00
12 Double Cross Rules, at 12 cts	1.44
12 Parallel Cross Rules, at 12 cts	1.44
24 Column Rules, at $1	24.00
Head Rules, about	6.00
30 lbs. Leads and Slugs, at 40 cts	12.00
400 lbs. Long Primer, at 62 cts	248.00
325 lbs. Brevier, at 70 cts	227.50
Display Type, for Reading Matter, about	22.50
Display Type, for Advertisements, about	37.50
Head for Paper, from $3.50 to	6.00
Cuts or Ornaments, about	12.00
	$1,341.16

BOXING AND SHIPPING, EXTRA.

Newspaper 24 × 36 inches.

1 Imperial No. 3 Washington Press	$375.00
1 Imperial No. 3 Distributing Frame, Roller Stocks, &c.	37.50
1 Imperial No. 3 Roller Mould, cast iron	25.20
1 Double Imperial No. 3 Imposing Stone and Frame	70.00
2 Imperial No. 3 Half Chases, at $7.50	15.00
4 Single Brass Bot. Proof Galleys, at $3.40	13.60
6 Common Galleys, say	5.00
4 Six or eight inch Comp. Sticks, at $1.50	6.00
3 Double Stands, with Racks, at $8.50	25.50
15 Pairs Cases, at $3.50	52.50
3 Job Cases, at $2.25	6.75
Iron Side and Foot Sticks	6.00
Mallet, Planer, Shooting Stick, Quoins and Bodkins	5.00
1 Lye Brush	1.13
1 Proof Brush	1.50
25 lbs. News Ink, at 35 cts	8.75
100 Advertising Rules, at 8 cts	8.00
50 Single Dash Rules, at 9 cts	4.50
20 Brass Dashes, at 12 cts	2.40
10 Double Cross Rules, at 12 cts	1.20
10 Parallel Cross Rules, at 12 cts	1.20
20 Column Rules, at $1.00	20.00
Head Rules, about	5.00
20 lbs. Leads and Slugs, at 40 cts	8.00
300 lbs. Long Primer, at 62 cts	186.00
250 lbs. Brevier, at 70 cts	175.00
Display Type, for Reading Matter, about	15.00
Display Type, for Advertisements, about	30.00
Head for Paper, from $3.50 to	6.00
Cuts or Ornaments about	10.00
	$1,126.73

BOXING AND SHIPPING, EXTRA.

For a Daily Newspaper, the principal fonts should be increased thirty to fifty per cent. Long Primer and Brevier are merely set down to give some idea of the cost: other sizes may be substituted, if preferred, the prices of which can be found by referring to our regular list of prices.

Type for a Country Job Office, in addition to the above, will cost from $250 to $750, according to selection, or the character and quantity of work to be executed. $300 worth is sufficient for a small office.

The following sizes of NEWSPAPER are always kept on hand:—22 × 32, 24 × 36, 24 × 38, 28 × 42. The following are also considered "regular" sizes, though not so certainly kept on hand:—26 × 37, 27 × 42, 29 × 44.

Newspaper Heads and all other descriptions of cuts are designed and engraved by us with elegance and dispatch. Also, Newspaper Heads and Cuts ELECTROTYPED in the same manner, and on reasonable terms.

Estimate for a Small Job Office.

1 Super Royal Washington Press	$330.00
1 Job and Card Press	from 400.00
1 Super Royal Chase, with Bars	10.50
1 Cap Chase	7.50
Assorted Job and Card Chases	10.50
1 Super Royal Roller Mould	21.60
Roller Stocks, &c	6.75
1 Single Super Royal Imposing Stone	31.50
2 Double Stands, with Racks at $8.50	17.00
7 Pair Cases at $3.50	24.50
12 Job Cases, at $2.25	27.00
6 Triple Cases, at $2.25	13.50
Cabinet 8 pair Cases	35.00
1 Super Royal Slice Galley	3.50
1 Quarto Brass Galley	3.00
Common Galleys	6.00
100 Yards Furniture	6.00
Saw and Miter Box	2.25
300 Hickory Quoins, at 75 cts	2.25
1 Mallet	.40
1 Planer	.40
1 Lye Brush	1.13
Brass Rules	18.00
Metal Rules	7.50
10 Yards Wood Rule, at 15 cts	1.50
Leads	17.50
20 lbs Quotations, at 40 cts	8.00
2 lbs. Space Rules, at $1.60	3.20
20 lbs. Book Ink	
2 lbs. Fine Ink	
5 lbs. Colored Ink	
3 oz. Bronze	
Composing Sticks	11.25
1 24-inch Mahogany Job Stick	2.50
6 lbs. Pearl, at $1.40	$ 8.40
50 lbs. Nonpareil, at 84 cts	42.00
50 lbs. Brevier at 70 cts	35.00
50 lbs. Long Primer at 62 cts	31.00
100 lbs. Small Pica at 58 cts	58.00
50 lbs. Pica, at 56 cts	28.00
50 lbs. Great Primer, at 56 cts	28.00
50 lbs Real Double Pica, at 54 cts	27.00
50 lbs. Double Paragon or Canon, at 54 cts	27.00
30 lbs. Great Primer Script, at $1.00	30.00
3 Fonts Condensed Black and Text	15.00
5 Fonts Ornamented, Pearl to Long Primer	20.00
5 Fonts Ornamented, Two Line Nonpareil to Great Primer	22.50
10 Fonts Ornamented Great Primer to Four Line Pica	50.00
2 Fonts Two Line	5.00
6 Fonts Condensed	18.00
2 Fonts Clarendon	5.00
2 Fonts Full Face	5.00
8 Fonts Gothic, Ionic, Antique, &c	28.00
4 Fonts Large Metal Job Type	30.00
5 Fonts Wood Type, Seven to Twelve Line Pica	50.00
3 Fonts Wood Type Fourteen to Thirty Line Pica	100.00
Borders	18.00
Cuts, Ornaments, Dashes, &c	18.00
Total	$

By deducting Presses and Appurtenances the above estimate is reduced to about $500, and can be further reduced for a small country Job Office to $300.

Estimate for a Large Job Office.

1 Imperial No. 5 Washington Press	$415.00
1 Card Press	240.00
1 Adams Job Press	640.00
1 Imperial No. 5 Roller Mould	27.60
1 Set Imperial No. 5 Distributors	45.00
1 Pair Imperial Chases, with bars	24.00
1 Pair Cap Chases, "	15.00
Job Chases, assorted	15.00
Job Roller Stocks and Handles	9.75
6 Double Stands, with Racks, at $8.50	51.00
20 Pair Cases, at $3.50	70.00
20 Job Cases, at $2.25	45.00
10 Triple Cases, at $2.25	22.50
2 Cabinets, at $35.00	70.00
1 Cabinet with Standing Galley	45.00
3 Slice Galleys	10.50
4 Double Brass Galleys, at $4.15	16.60
2 Quarto Brass Galleys	6.00
10 Common Galleys	10.00
200 Yards Furniture, &c	14.00
1000 Hickory Quoins	7.50
3 Mallets	1.20
3 Planers	1.20
6 Shooting Sticks	.48
8 Composing Sticks	17.50
1 30-inch Mahogany Job Stick	2.75
2 Lye Brushes, at $1.13	$ 2.26
2 Proof Brushes, at $1.50	3.00
Saw and Iron Mitre Box	7.50
Wood Mitre Box	2.25
1 Dbl. Imperial No. 5 Imposing Stone	75.00
30 lbs News Ink	
25 lbs. Book "	
5 lbs. Fine "	
5 lbs. Poster "	
5 lbs. Poster "	
5 lbs. Colored Ink, assorted	
2 lbs. Varnish	
1 lb. Gold Size	
8 oz. Bronze, assorted colors	
100 lbs. Leads, at 40 cts	40.00
30 lbs. Quotations, at 40 cts	12.00
3 lbs. Space Rules, at $1.60	4.80
Brass Rules	45.00
Metal "	15.00
20 Yards Wood Rule	3.00
25 lbs. Pearl, at $1.40	35.00
100 lbs. Nonpareil, at 84 cts	84.00
200 Brevier, at 70 cts	140.00
100 lbs. Long Primer, at 62 cts	62.00
300 lbs. Small Pica, at 58 cts	174.00
100 lbs. Pica, at 56 cts	56.00

Estimate for a Large Job Office.

50 lbs. Great Primer, at 56 cts.	28.00
50 lbs. Double Small Pica, at 54 cts.	27.00
50 lbs. Double English, at 54 cts.	27.00
50 lbs. Double Paragon, at 54 cts.	27.00
50 lbs. Four Line Pica, at 52 cts.	26.00
30 lbs. Great Primer Script, at 75 cts.	22.50
50 lbs. Double Small Pica Script, at 90 cts.	45.00
25 lbs. Double Small Pica Mercantile Script, at 90 cts.	22.50
20 lbs. Double Great Primer Script, at 82 cts.	16.40
30 lbs. Two Line Pica Caligraphic Script. at 90 cts.	27.00
20 lbs. Canou Caligraphic Script, at 72 cts	14.40
8 Fonts Ornamented Pearl to Long Primer	24.00
12 Fonts Ornamented Two Line Nonparcil to Great Primer.	36.00
15 Fouts Ornamented Great Primer to Four Line Pica	$70.00
8 Fonts Extended and Two Liue	30.00
6 Fonts Condensed Black and Text	36.00
8 Fonts Clarendon and Full Face	35.00
10 Fonts Gothic, Antique, and Ionic	50.00
6 Fonts Large Metal Job Letter	90.00
20 Fonts Wood Type, Seven to Fifty Line Pica	400.00
Borders	100.00
Cuts, Ornaments, Dashes, &c.	50.00
1 Standing Press, 2½ inch Screw	160.00
Total	$

Estimate for a Bookbinding Establishment.

1 Standing Press	from $125 to $
1 Ruling Machine	250.00
An assortment of Ruling Pens from	$12.50 to 17.50
1 Pair 12 inch Squaring Shears	24.00
1 Cutting Press and Plow	15.00
1 Knife and Pin for do.	1.75
Plow and Boards for squaring paper	50.00
Screw with iron point for do. and Nut	5.00
Table-Shears and Table	60.00
Sewing Bench	2.75
1 Finishing Press	3.25
1 Pair Backing Boards, each 12 × 18 inches,	7.50
1 Backing Hammer	2.00
1 Beating Hammer	3.50
1 Backing Iron	4.50
1 Pair Compasses	.75
1 " Hand Shears	2.50
1 Paring Knife and Folder	.40
20 feet Cutting Board	$1.00
24 feet Grooving or Backing Rods	1.50
12 Pressing Boards	15.00
1 Cast Steel Polisher	5.00
1 Lettering Palette	5.60
3 Fillets	
3 Blauk Rolls	
3 Gilding Rolls	
Edge Rolls	
1 Gold Cushion, $6; 1 Gold Knife, 50 cts.	
2 Agate Burnishers	5.00
1 Type Cabinet, $10.00; Type, $15.00	25.50
1 Iron Square	
1 Glue Pot and Brush	
1 Back Saw	2.50
1 Grindstone, with Frame	
Total	$

Estimate for a Small Lithographic Office.

1 Lithographic Press	$
Stones	from
2 Ink Rollers	
Ink	
4 gallons Varnish	
Sponges, Gum Arabic, Turpentine, &c.	$
Stone and Muller	
Total	$

Estimate for a Copper-plate Printing Office.

Press 15 inches wide	$184.00
Ink Roller	6.50
Ink Stoue and Muller	8.50
Cast Iron Stove for heating plates, and six feet pipe	
Bench, 6 feet by 20 inches	
1 pair Press Boards, 10×16 inches	2.00
1 yard superfine broadcloth Blanket	$9.33
10 lb. best Frankfort Black	5.00
1 gallon Burnt Linseed Oil and Oil Can	4.00
50 Bookbinders' Boards, for drying impressions	
Total	$

Estimate for an Electrotype Establishment.

Capable of turning out Eighteen 12mo Pages per day.

1 Moulding Press, platen 16×19½ inches	$400.00
3 Brass Moulding Cases, 13½×19 in. inside, $22.00 each	66.00
2 Building Irons	8.00
1 Blackleading Box	15 00
1 " Brush	
1 Pair Bellows	8.00
1 Pump and Hose	20.00
1 Battery	
1 Precipitating Trough	
1 Melting Pot and Furnace Top	$ 40.00
1 Backing Pan (open or covered) and Stand	100.00
1 Pair small Hoisting Blocks and Overhead Bar	45.00
1 Hand-Saw	2.50
1 No. 1 Shaving Machine	160.00
1 Shootboard and 2 Planes	30.00
1 Chipping Block	5.00
Total	$

Capable of making Seventy-two 12mo Pages per day.

1 Moulding Press, platen 16×19½ inches	$400.00
12 Brass Moulding Cases, 13½ × 19 in. inside, $22 each	264.00
1 Iron Heating Table for cases (steam or gas)	
1 Copper Steam Wax Kettle	
2 Building Irons with Gas Stand	12.00
1 Blackleading Machine	
1 Pair of Bellows	8.00
1 Pump and Hose	20.00
1 Battery	
1 Precipitating Trough	
1 Iron Melting Furnace, lined with fire-brick	$200.00
2 Backing Pans (open or closed) with Stand	200.00
1 Crane for lifting Backing Pans	75.00
1 Sawing Machine	240.00
1 No. 1 Shaving Machine	160.00
1 Extra Head for same	40.00
1 Shootboard and 2 Planes	30.00
1 Trimming Block	5.00
Total	$

Estimate for a Stereotype Foundry.

For a Plate 9 × 12 inches—Clay Process.

1 Portable Melting Furnace	$ 82.50
1 Screw Moulding Press	150.00
1 C. I. " " Plate 11×15×½	12.20
1 " " " " 12×15×½	12.20
6 " Cramps, for "	11.25
1 " Leveling Bar	9.38
1 " Chase	3.75
1 Marble Top Table, 16×16 inches	22.50
1 Trowel	2.82
2 Brushes	9.38
1 Pair of Tongs	3.75
1 Pair of Pincers	$1.90
2 Lifting Irons	1.88
2 Gauge Wires	.93
1 Shoot Board, 1 Jointer, 1 Bevel Plane	30.00
100 lbs. Clay	11.25
Plaster and Gum Arabic	3.75
	$369.44

Paper Process.

1 Drying Press	$ 50.00
1 Melting Furnace	60.00
1 Casting Mould	120.00
1 Sawing Table	240.00
1 Shaving Machine	160.00
1 Shoot Board	15.00
1 Side Plane	7.50
1 Jointer	7.50
Brass Border Furniture, per foot	1.50
Wood " " "	.10
1 Oil Brush (goats' hair	2.50
1 Chalk Brush (goats' hair)	$2.50
1 Beating Brush (bristles)	6.00
1 Varnish " (wire bound)	2.50
1 Circular Hard Brush, for sieving	1.50
Blanket, $2.00; Shears, $2.50; Ladle, Mallet, 40 cts.; Planer, 40 cts.; Wood Seive, $3.00	3.80
Half-dozen Chisels, assorted	10.00
Soft unsized Paper, 19×24, 40 lb.	
Tissue Paper	
Boxing and Carting	

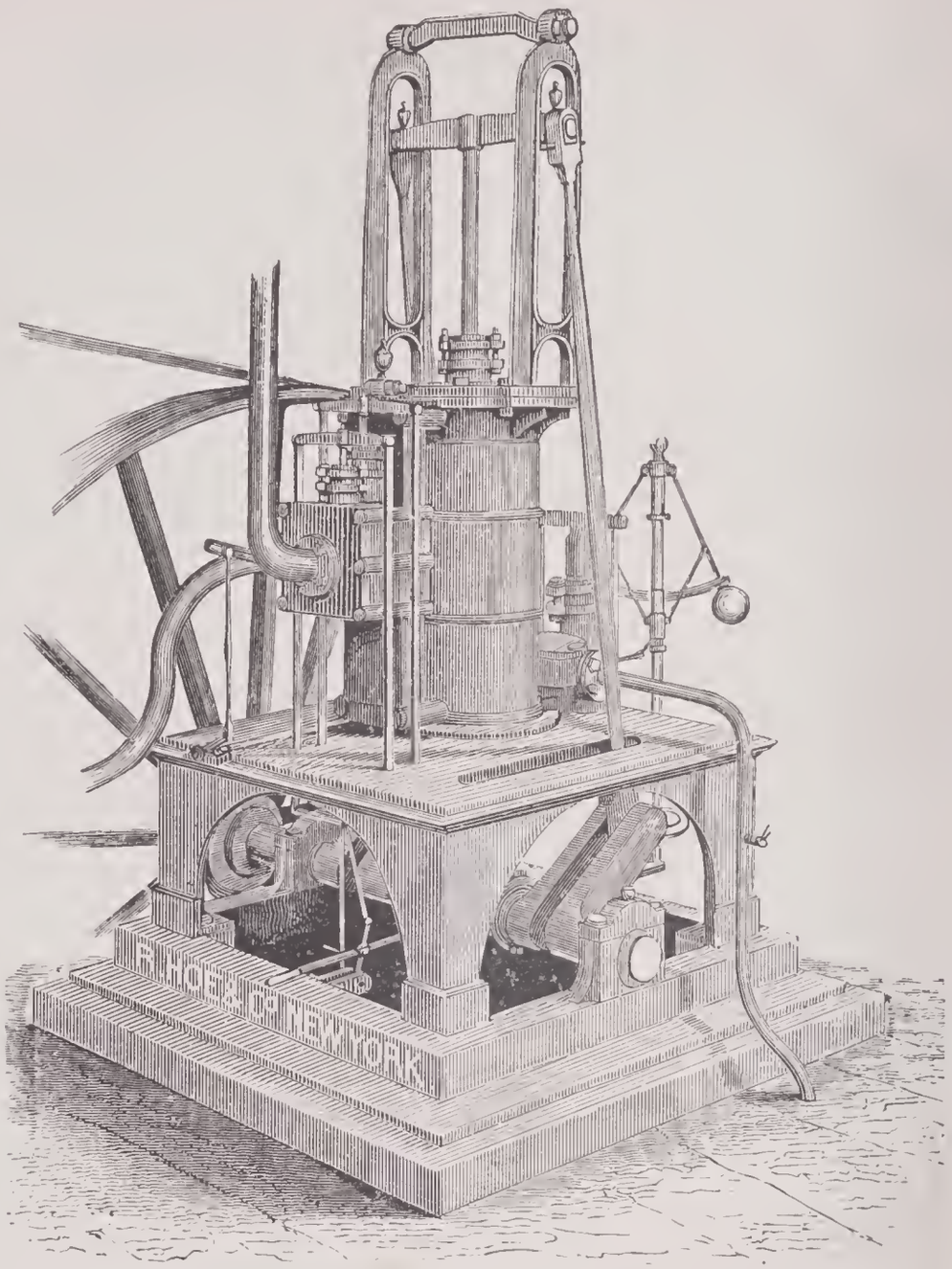
Plaster Process.

Casting Department.

1 Melting Furnace, all iron, pot 9 × 16 × 20	$150.00
1 Crane	75.00
2 Casting Pans, 12 × 16 in., $25.00	50.00
2 Stereotype Chases, 11 × 13 in. inside, $2.50	5.00
1 Mould for frames	20.00
24 Thumb Screws for frames	12.00
1 Stirrer, Skimmer and Ladle	15.00
1 Moulding Stone, mounted, 18 × 30	30.00
4 Stereotype Brushes	15.00

Finishing Department.

1 Saw Table	$240.00
1 Shaving Machine, No. 1	160.00
1 Extra Head	40.00
1 Shoot Board	15.00
1 Side Plane	7.50
1 Jointer Plane	7.50
1 Trimming Block	10.00
2 Hammers, Half-dozen Chisels	10.00
Boxing and Carting	



Vertical Steam Engine.

This engraving represents a high pressure steam-engine, which, as it occupies but little space, is admirably adapted to the impelling of machinery for printing and other manufacturing purposes where room is valuable. It is remarkable for symmetrical proportions, compactness and great strength.

Sizes and Prices.

Horse Power.	Diameter of Cylinder.	Length of Stroke.	Size of Pedestal.	Diameter of Fly-Wheel.	Price.	Boxing and Carting.
5	6½ in.	16 in.	3 ft. 2 in. × 2 ft. 10 in.	5 ft. 9 in.	$2,250	$30.00
10	9 "	22 "	4 " 0 " × 3 " 5 "	7 " 3 "	3,500	40.00
15	11 "	22 "	4 " 0 " × 3 " 5 "	7 " 3 "	4,500	50.00
20	13 "	24 "	4 " 4 " × 3 " 6 "	10 " 0 "	6,000	60.00

H 124 81

Deacidified using the Bookkeeper process.
Neutralizing agent: Magnesium Oxide
Treatment Date: September, 2014

PreservationTechnologies
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